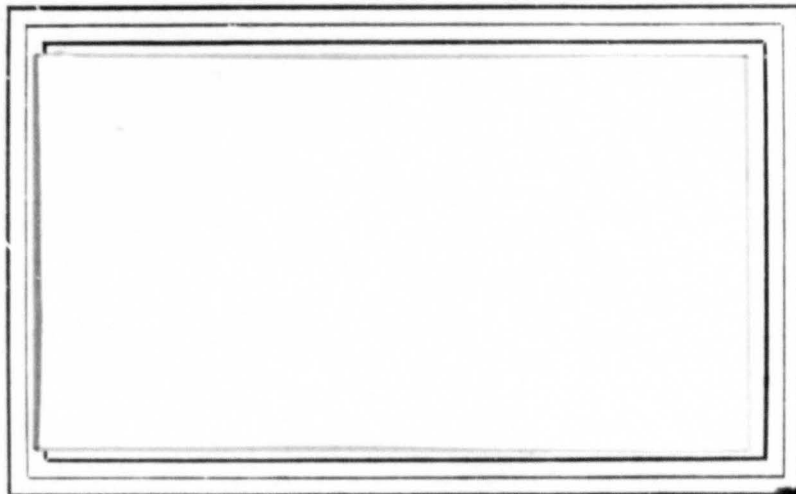


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March 1967

BLACK BODY FUNCTIONS FOR  
PYROTECHNICISTS

✓ R. M. BLUNT  
Denver Research Institute

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Released

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Concept Division  
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# ABSTRACT

Planck's black body data is tabulated. The data is presented from 0.35 microns to 12.0 microns in increments of 0.005 microns and at temperatures from 1500 °K through 4050 °K in 50 °K increments. Hemispherical power, power normalized to peak, spectral brightness, temperature exponent  $N$ , and cumulative and percentage of power between zero and the listed wavelength. In addition, graphs of the temperature exponent vs temperature and vs wavelength are included.

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## Black Body Functions for Pyrotechnicists

Robert M. Blunt<sup>1</sup>

The data presented in the following tabulation is derived from Planck's radiation law. The values used for the first and second radiation constant are  $C_1 = 3.7405 \times 10^{-12}$  watts  $\text{cm}^2$  and  $C_2 = 14385$  micron  $^\circ\text{K}$ . The value of the Stefan-Boltzmann constant is  $\sigma = 5.6697 \times 10^{-12}$  watts  $\text{cm}^{-2}$   $\text{deg}^{-4}$ . The conversion factor from watts/ $\text{cm}^2$  in the visible region to lumens/ $\text{cm}^2$  is 680 lumens watt<sup>-1</sup> at 0.555 micron.

In general, the values are hemispherical values and should be divided by  $\pi$  if values of the component normal to the surface are required.

The wavelength at which the power peaks is calculated from  $\lambda_{\text{max}} = 2898$  micron  $^\circ\text{K}/T$ . The wavelength produced most efficiently is computed from  $\lambda_e = 3652/T$   $^\circ\text{K}$ . This relation is derived by Benford\* by setting the derivative of the quotient of Planck's law divided by  $\sigma T^4$ , with respect to  $T$ , equal to zero and solving this equation.

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\*Benford, Frank, Journal of the Optical Society of America, Vol. 29, Feb. 1939, page 92-96.

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Temperature Exponent  $M$  in  $W = KT^M$ 

$M$  is tabulated for each wavelength at a given temperature. The value of  $M$  denotes the rate at which the radiance ( $W$ ) is changing at a specific wavelength. For example: The Stefan-Boltzmann equation  $W = \sigma T^4$  gives radiance ( $W$ ) over the entire electromagnetic spectrum as a function of temperature ( $T$ ) to the fourth power ( $T^4$ ). This then says that  $T^4$  represents the composite change of the radiance ( $W$ ) over the whole spectrum. On the other hand, the equation  $W = KT^M$  which is in the same form as the Stefan-Boltzmann equation is used in these tables to show the rate at which the radiance ( $W$ ) is changing at a given wavelength and at a specific temperature. Thus, from the table at 1500 °K and at 0.50000 microns wavelength,  $M$  is given as 19.1800. This then means that at 1500 °K the spectral radiance at 0.5 microns is changing as a function of  $T$  to the 19.1800 power whereas the total radiance is changing as  $T$  to the 4 power.

A family of graphs are included near the end of the tables. These graphs show the temperature exponent ( $M$ ) plotted against temperature and against wavelength.

## ACKNOWLEDGMENT

The programming assistance received from Mrs. Anita West of the Denver Research Institute is greatly appreciated.

VISIBILITY AND OTHER DATA FOR PLANCH RADIATION, MECHANICS DIVISION, D.R.I., UNIVERSITY OF DENVER,

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 1224.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1900.0  
DEGREES FAHRENHEIT = 2240.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.03 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 2.01 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 0.77 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.001.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 73.621 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.005 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.9390 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.4387 MICRONS.  
I.E. THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 26.70 WATT/CM<sup>2</sup> OR 2.87020E+08 FNG/SEC/CM<sup>2</sup> OR 6.84019E+03 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 9.78 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT X RADIANT EMITTANCE X VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (M) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = K/T<sup>4</sup>.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 1224.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1900.0  
DEGREES FAHRENHEIT = 2240.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K/T <sup>4</sup>	POWER FROM ZERO TO L	S TOTAL POWER ZERO TO L
0.35000	0.97265E-04	0.1774E-07	0.0000	27.6000	1.2816E-07	0.000
0.35500	0.00001	1.2574E-06	0.0000	27.0141	1.8095E-07	0.000
0.36000	0.00002	1.7064E-06	0.0000	26.6389	2.5292E-07	0.000
0.36500	0.00002	2.2942E-06	0.0000	26.2740	3.5009E-07	0.000
0.37000	0.00003	3.0546E-06	0.0000	25.9189	4.8612E-07	0.000
0.37500	0.00004	4.0384E-06	0.0000	25.5733	6.5259E-07	0.000
0.38000	0.00005	5.2914E-06	0.0000	25.2368	8.5046E-07	0.000
0.38500	0.00007	6.8793E-06	0.0000	24.9091	1.1755E-06	0.000
0.39000	0.00009	8.8760E-06	0.0000	24.5897	1.5588E-06	0.000
0.39500	0.00011	1.1368E-05	0.0000	24.2784	2.0515E-06	0.000
0.40000	0.00014	1.4462E-05	3.8458E-05	23.9750	2.6803E-06	0.000
0.40500	0.00018	1.8272E-05	9.7183E-05	23.6790	3.4774E-06	0.000
0.41000	0.00022	2.2938E-05	0.0002	23.3902	4.4410E-06	0.000
0.41500	0.00024	2.8617E-05	0.0004	23.1044	5.7388E-06	0.000
0.42000	0.00035	3.5889E-05	0.0009	22.8333	7.2887E-06	0.000
0.42500	0.00043	4.3754E-05	0.0021	22.5647	9.2247E-06	0.000
0.43000	0.00052	5.3655E-05	0.0041	22.3023	1.1604E-05	0.000
0.43500	0.00064	6.5639E-05	0.0073	22.0460	1.4507E-05	0.000
0.44000	0.00078	7.8800E-05	0.0121	21.7955	1.8038E-05	0.000
0.44500	0.00094	9.5860E-05	0.0185	21.5504	2.2311E-05	0.000
0.45000	0.00113	0.0001	0.0291	21.3111	2.7559E-05	0.000
0.45500	0.00135	0.0001	0.0440	21.0769	3.3626E-05	0.000
0.46000	0.00160	0.0002	0.0654	20.8478	4.0986E-05	0.000
0.46500	0.00190	0.0002	0.0956	20.6237	4.9729E-05	0.000
0.47000	0.00224	0.0002	0.1388	20.4041	5.9971E-05	0.000
0.47500	0.00264	0.0003	0.2009	20.1895	7.2254E-05	0.000
0.48000	0.00309	0.0003	0.2820	19.9792	8.6549E-05	0.000
0.48500	0.00360	0.0004	0.4142	19.7732	0.0001	0.000
0.49000	0.00419	0.0004	0.5926	19.5714	0.0001	0.000
0.49500	0.00485	0.0005	0.8314	19.3737	0.0001	0.001
0.50000	0.00557	0.0006	1.2303	19.1800	0.0002	0.001
0.50500	0.00644	0.0007	1.7835	18.9901	0.0002	0.002
0.51000	0.00739	0.0009	2.5276	18.8039	0.0002	0.001
0.51500	0.00845	0.0009	3.4926	18.6214	0.0003	0.001
0.52000	0.00961	0.0010	4.8482	18.4423	0.0003	0.001
0.52500	0.01094	0.0011	6.5993	18.2667	0.0004	0.001
0.53000	0.01240	0.0013	7.7660	18.0943	0.0004	0.001
0.53500	0.01401	0.0014	8.7149	17.9252	0.0005	0.002
0.54000	0.01578	0.0016	10.2393	17.7593	0.0006	0.002
0.54500	0.01774	0.0018	11.8221	17.5963	0.0007	0.002
0.55000	0.01989	0.0020	13.4545	17.4364	0.0007	0.003
0.55500	0.02224	0.0023	15.1244	17.2793	0.0009	0.003
0.56000	0.02481	0.0025	16.7891	17.1250	0.0010	0.003
0.56500	0.02762	0.0028	18.3967	16.9735	0.0011	0.004
0.57000	0.03067	0.0031	19.8558	16.8246	0.0012	0.004



1.50000	8.25294	0.4441	0.0000	4.4940	3.1703	11.045
1.60000	8.41998	0.4123	0.0000	4.0287	4.0307	14.043
1.70000	8.58702	0.3806	0.0000	3.5634	4.9475	17.237
1.80000	8.75406	0.3488	0.0000	3.0981	5.8643	20.559
1.90000	8.92110	0.3170	0.0000	2.6328	6.7811	23.947
2.00000	9.08814	0.2852	0.0000	2.1675	7.6979	27.351
2.10000	9.25518	0.2534	0.0000	1.7022	8.6147	30.727
2.20000	9.42222	0.2216	0.0000	1.2369	9.5315	34.043
2.30000	9.58926	0.1898	0.0000	0.7716	10.4483	37.277
2.40000	9.75630	0.1580	0.0000	0.3063	11.3651	40.394
2.50000	9.92334	0.1262	0.0000	0.0000	12.2819	43.402
2.60000	10.09038	0.0944	0.0000	0.0000	13.1987	46.281
2.70000	10.25742	0.0626	0.0000	0.0000	14.1155	49.024
2.80000	10.42446	0.0308	0.0000	0.0000	15.0323	51.642
2.90000	10.59150	0.0000	0.0000	0.0000	15.9491	54.124
3.00000	10.75854	0.0000	0.0000	0.0000	16.8659	56.475
3.10000	10.92558	0.0000	0.0000	0.0000	17.7827	58.699
3.20000	11.09262	0.0000	0.0000	0.0000	18.6995	60.800
3.30000	11.25966	0.0000	0.0000	0.0000	19.6163	62.784
3.40000	11.42670	0.0000	0.0000	0.0000	20.5331	64.655
3.50000	11.59374	0.0000	0.0000	0.0000	21.4499	66.410
3.60000	11.76078	0.0000	0.0000	0.0000	22.3667	68.052
3.70000	11.92782	0.0000	0.0000	0.0000	23.2835	69.589
3.80000	12.09486	0.0000	0.0000	0.0000	24.1999	71.124
3.90000	12.26190	0.0000	0.0000	0.0000	25.1163	72.534
4.00000	12.42894	0.0000	0.0000	0.0000	26.0327	73.899
4.10000	12.59598	0.0000	0.0000	0.0000	26.9491	75.064
4.20000	12.76302	0.0000	0.0000	0.0000	27.8655	76.231
4.30000	12.93006	0.0000	0.0000	0.0000	28.7819	77.331
4.40000	13.09710	0.0000	0.0000	0.0000	29.6983	78.368
4.50000	13.26414	0.0000	0.0000	0.0000	30.6147	79.349
4.60000	13.43118	0.0000	0.0000	0.0000	31.5311	80.272
4.70000	13.59822	0.0000	0.0000	0.0000	32.4475	81.145
4.80000	13.76526	0.0000	0.0000	0.0000	33.3639	81.971
4.90000	13.93230	0.0000	0.0000	0.0000	34.2803	82.751
5.00000	14.09934	0.0000	0.0000	0.0000	35.1967	83.480
5.10000	14.26638	0.0000	0.0000	0.0000	36.1131	84.168
5.20000	14.43342	0.0000	0.0000	0.0000	37.0295	84.800
5.30000	14.60046	0.0000	0.0000	0.0000	37.9459	85.477
5.40000	14.76750	0.0000	0.0000	0.0000	38.8623	86.071
5.50000	14.93454	0.0000	0.0000	0.0000	39.7787	86.634
5.60000	15.10158	0.0000	0.0000	0.0000	40.6951	87.169
5.70000	15.26862	0.0000	0.0000	0.0000	41.6115	87.677
5.80000	15.43566	0.0000	0.0000	0.0000	42.5279	88.150
5.90000	15.60270	0.0000	0.0000	0.0000	43.4443	88.617
6.00000	15.76974	0.0000	0.0000	0.0000	44.3607	89.053
6.10000	15.93678	0.0000	0.0000	0.0000	45.2771	89.467
6.20000	16.10382	0.0000	0.0000	0.0000	46.1935	89.862
6.30000	16.27086	0.0000	0.0000	0.0000	47.1099	90.237
6.40000	16.43790	0.0000	0.0000	0.0000	48.0263	90.595
6.50000	16.60494	0.0000	0.0000	0.0000	48.9427	90.936
6.60000	16.77198	0.0000	0.0000	0.0000	49.8591	91.261
6.70000	16.93902	0.0000	0.0000	0.0000	50.7755	91.572
6.80000	17.10606	0.0000	0.0000	0.0000	51.6919	91.864
6.90000	17.27310	0.0000	0.0000	0.0000	52.6083	92.151

7.00000	0.75810	0.0775	0.0000	1.8367	26.4274	92.421
7.10000	0.72445	0.0741	0.0000	1.8230	26.4010	92.679
7.20000	0.69080	0.0706	0.0000	1.8094	26.3745	92.936
7.30000	0.65715	0.0670	0.0000	1.7957	26.3480	93.193
7.40000	0.62350	0.0635	0.0000	1.7821	26.3215	93.450
7.50000	0.58985	0.0600	0.0000	1.7684	26.2950	93.707
7.60000	0.55620	0.0565	0.0000	1.7548	26.2685	93.964
7.70000	0.52255	0.0530	0.0000	1.7411	26.2420	94.221
7.80000	0.48890	0.0495	0.0000	1.7275	26.2155	94.478
7.90000	0.45525	0.0460	0.0000	1.7138	26.1890	94.735
8.00000	0.42160	0.0425	0.0000	1.7002	26.1625	94.992
8.10000	0.38795	0.0390	0.0000	1.6865	26.1360	95.249
8.20000	0.35430	0.0355	0.0000	1.6729	26.1095	95.506
8.30000	0.32065	0.0320	0.0000	1.6592	26.0830	95.763
8.40000	0.28700	0.0285	0.0000	1.6456	26.0565	96.020
8.50000	0.25335	0.0250	0.0000	1.6319	26.0300	96.277
8.60000	0.21970	0.0215	0.0000	1.6183	26.0035	96.534
8.70000	0.18605	0.0180	0.0000	1.6046	25.9770	96.791
8.80000	0.15240	0.0145	0.0000	1.5910	25.9505	97.048
8.90000	0.11875	0.0110	0.0000	1.5773	25.9240	97.305
9.00000	0.08510	0.0075	0.0000	1.5637	25.8975	97.562
9.10000	0.05145	0.0040	0.0000	1.5500	25.8710	97.819
9.20000	0.01780	0.0005	0.0000	1.5364	25.8445	98.076
9.30000	0.00000	0.0000	0.0000	1.5227	25.8180	98.333
9.40000	0.00000	0.0000	0.0000	1.5091	25.7915	98.590
9.50000	0.00000	0.0000	0.0000	1.4954	25.7650	98.847
9.60000	0.00000	0.0000	0.0000	1.4818	25.7385	99.104
9.70000	0.00000	0.0000	0.0000	1.4681	25.7120	99.361
9.80000	0.00000	0.0000	0.0000	1.4545	25.6855	99.618
9.90000	0.00000	0.0000	0.0000	1.4408	25.6590	99.875
10.00000	0.00000	0.0000	0.0000	1.4272	25.6325	100.132
10.10000	0.00000	0.0000	0.0000	1.4135	25.6060	100.389
10.20000	0.00000	0.0000	0.0000	1.4000	25.5795	100.646
10.30000	0.00000	0.0000	0.0000	1.3863	25.5530	100.903
10.40000	0.00000	0.0000	0.0000	1.3727	25.5265	101.160
10.50000	0.00000	0.0000	0.0000	1.3590	25.5000	101.417
10.60000	0.00000	0.0000	0.0000	1.3454	25.4735	101.674
10.70000	0.00000	0.0000	0.0000	1.3317	25.4470	101.931
10.80000	0.00000	0.0000	0.0000	1.3181	25.4205	102.188
10.90000	0.00000	0.0000	0.0000	1.3044	25.3940	102.445
11.00000	0.00000	0.0000	0.0000	1.2908	25.3675	102.702
11.10000	0.00000	0.0000	0.0000	1.2771	25.3410	102.959
11.20000	0.00000	0.0000	0.0000	1.2635	25.3145	103.216
11.30000	0.00000	0.0000	0.0000	1.2498	25.2880	103.473
11.40000	0.00000	0.0000	0.0000	1.2362	25.2615	103.730
11.50000	0.00000	0.0000	0.0000	1.2225	25.2350	103.987
11.60000	0.00000	0.0000	0.0000	1.2089	25.2085	104.244
11.70000	0.00000	0.0000	0.0000	1.1952	25.1820	104.501
11.80000	0.00000	0.0000	0.0000	1.1816	25.1555	104.758
11.90000	0.00000	0.0000	0.0000	1.1679	25.1290	105.015
12.00000	0.00000	0.0000	0.0000	1.1543	25.1025	105.272

VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, D.R.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1776.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1550.0  
DEGREES FAHRENHEIT = 2820.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.61 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 4.10 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 1.10 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.002 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER /S 70.972 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.124 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0697 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.1541 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 39.73 WATT/CM<sup>2</sup> ( 1.27253E+01 ERG/SEC/CM<sup>2</sup> OR 7.42159E+01 CAL/SEC/CM<sup>2</sup> )

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1.2 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, (1) LUMENS PER WATT X RADIANT EMITTANCE X VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER ( ONE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (X) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: X = N (DT/T).

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 17 6.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1550.0  
DEGREES FAHRENHEIT = 3130.0

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PFA	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT N FOR RAYON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00002	1.8853E-01	0.0000	26.5161	3.2172E-07	0.000
0.35500	0.00003	2.5513E-01	0.0000	26.1427	4.4865E-07	0.000
0.36000	0.00004	3.4205E-01	0.0000	25.7796	6.1957E-07	0.000
0.36500	0.00005	4.5447E-01	0.0000	25.4264	8.4762E-07	0.000
0.37000	0.00007	5.9867E-01	0.0000	25.0828	1.1373E-06	0.000
0.37500	0.00009	7.8213E-01	0.0000	24.7484	1.5340E-06	0.000
0.38000	0.00012	1.0134E-01	0.0000	24.4228	2.0596E-06	0.000
0.38500	0.00015	1.3041E-01	0.0000	24.1054	2.7241E-06	0.000
0.39000	0.00019	1.6653E-01	0.0000	23.7964	3.5740E-06	0.000
0.39500	0.00024	2.1114E-01	0.0000	23.4951	4.6591E-06	0.000
0.40000	0.00031	2.6807E-01	0.3142E-05	23.2014	6.0201E-06	0.000
0.40500	0.00038	3.3740E-01	0.0002	22.9152	7.7470E-06	0.000
0.41000	0.00044	4.1404E-01	0.0004	22.6357	9.8904E-06	0.000
0.41500	0.00050	5.1147E-01	0.0009	22.3630	1.2540E-05	0.000
0.42000	0.00057	6.2918E-01	0.0010	22.0964	1.5825E-05	0.000
0.42500	0.00069	7.6806E-01	0.0014	21.8368	1.9840E-05	0.000
0.43000	0.00104	9.3508E-01	0.0019	21.5829	2.4735E-05	0.000
0.43500	0.00130	0.0011	0.00140	21.3344	3.0470E-05	0.000
0.44000	0.00157	0.0011	0.00245	21.0921	3.7030E-05	0.000
0.44500	0.00184	0.0001	0.00370	20.8554	4.4427E-05	0.000
0.45000	0.00224	0.0007	0.00574	20.6237	5.2690E-05	0.000
0.45500	0.00264	0.0001	0.00843	20.3970	6.1914E-05	0.000
0.46000	0.00314	0.0001	0.01249	20.1751	7.2189E-05	0.000
0.46500	0.00370	0.0001	0.01800	19.9584	8.3589E-05	0.000
0.47000	0.00433	0.0001	0.02462	19.7461	9.6003E-05	0.000
0.47500	0.00504	0.0001	0.03354	19.5389	0.0001	0.000
0.48000	0.00589	0.0001	0.04543	19.3367	0.0001	0.000
0.48500	0.00682	0.0001	0.06039	19.1394	0.0002	0.000
0.49000	0.00784	0.0001	0.07912	18.9461	0.0002	0.000
0.49500	0.00907	0.0001	0.10135	18.7469	0.0003	0.000
0.50000	0.01040	0.0001	0.12587	18.5413	0.0003	0.000
0.50500	0.01184	0.0001	0.15291	18.3374	0.0004	0.000
0.51000	0.01335	0.0001	0.18361	18.1347	0.0004	0.000
0.51500	0.01540	0.0001	0.21804	17.9347	0.0005	0.000
0.52000	0.01745	0.0001	0.25627	17.7367	0.0005	0.000
0.52500	0.01972	0.0001	0.29833	17.5407	0.0006	0.000
0.53000	0.02222	0.0001	0.34423	17.3467	0.0006	0.000
0.53500	0.02497	0.0002	0.39396	17.1540	0.0007	0.000
0.54000	0.02799	0.0002	0.44750	16.9626	0.0008	0.000
0.54500	0.03129	0.0002	0.50484	16.7726	0.0009	0.000
0.55000	0.03490	0.0003	0.56600	16.5840	0.0010	0.000
0.55500	0.03884	0.0003	0.63101	16.3967	0.0011	0.000
0.56000	0.04311	0.0003	0.69987	16.2107	0.0012	0.000
0.56500	0.04775	0.0004	0.77257	16.0260	0.0013	0.000
0.57000	0.05278	0.0004	0.84911	15.8426	0.0014	0.000

[illegible]





VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, D.R.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000% AND THE TEMPERATURE IS 1376.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1600.0  
DEGREES FAHRENHEIT = 2420.0

THE POWER RADIATED FROM 0.40 TO 0.7 MICRON IS 0.08 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 4.70 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/P) OF TOTAL VISIBLE FLUX IS 2.13 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.002.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 84.309 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.100 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.9114 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.2829 MICRONS.  
I.E., THIS WAVELENGTH MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 37.16 WATT/CM<sup>2</sup> OR 3.715000E+01 ENG/SEC/CM<sup>2</sup> OR 8.880720E+03 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 13.50 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, WATT PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (E) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $E = W \cdot M$

THE EMISSIVITY IS 1.000% AND THE TEMPERATURE IS 1376.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1600.0  
DEGREES FAHRENHEIT = 2420.0

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR ANYON	POWER FROM ZERO TO L	S TOTAL POWER ZERO TO L
0.35000	0.00005	3.4830E-04	0.0000	25.4875	7.6340E-07	0.000
0.35500	0.00007	4.9275E-04	0.0000	25.1257	1.0423E-06	0.000
0.36000	0.00009	6.5316E-04	0.0000	24.9740	1.4360E-06	0.000
0.36500	0.00012	8.5431E-04	0.0000	24.8318	1.9848E-06	0.000
0.37000	0.00015	1.1188E-03	0.0000	24.6990	2.6883E-06	0.000
0.37500	0.00020	1.4469E-03	0.0000	23.9750	3.4490E-06	0.000
0.38000	0.00025	1.8559E-03	0.0000	23.4595	4.5794E-06	0.000
0.38500	0.00032	2.3633E-03	0.0000	23.1523	5.9875E-06	0.000
0.39000	0.00041	2.9490E-03	0.0000	23.0529	7.7070E-06	0.000
0.39500	0.00051	3.7448E-03	0.0000	22.7611	1.0045E-05	0.000
0.40000	0.00061	4.6468E-03	0.0000	22.4768	1.2904E-05	0.000
0.40500	0.00074	5.8128E-03	0.0000	22.1901	1.6436E-05	0.000
0.41000	0.00087	7.1668E-03	0.0000	21.9026	2.0404E-05	0.000
0.41500	0.00119	8.7468E-03	0.0018	21.6642	2.4172E-05	0.000
0.42000	0.00145	0.0001	0.0039	21.4661	2.7733E-05	0.000
0.42500	0.00175	0.0001	0.0087	21.1544	4.0700E-05	0.000
0.43000	0.00211	0.0002	0.0167	20.9084	5.0154E-05	0.000
0.43500	0.00254	0.0002	0.0290	20.6681	6.1958E-05	0.000
0.44000	0.00303	0.0002	0.0474	20.4332	7.5450E-05	0.000
0.44500	0.00360	0.0003	0.0711	20.2037	9.2405E-05	0.000
0.45000	0.00427	0.0003	0.1102	19.9792	0.0001	0.000
0.45500	0.00501	0.0004	0.1641	19.7594	0.0001	0.000
0.46000	0.00590	0.0004	0.2408	19.5448	0.0002	0.000
0.46500	0.00690	0.0005	0.3471	19.3347	0.0002	0.001
0.47000	0.00803	0.0006	0.4970	19.1290	0.0002	0.001
0.47500	0.00932	0.0007	0.7096	18.9276	0.0003	0.001
0.48000	0.11077	0.0008	1.0179	18.7303	0.0003	0.001
0.48500	0.13240	0.0009	1.4254	18.5374	0.0004	0.001
0.49000	0.14824	0.0011	2.0137	18.3482	0.0004	0.001
0.49500	0.16829	0.0012	2.8576	18.1629	0.0005	0.001
0.50000	0.18477	0.0014	4.0797	17.9811	0.0006	0.001
0.50500	0.20212	0.0016	5.8444	17.8032	0.0007	0.002
0.51000	0.22394	0.0018	8.1949	17.6287	0.0008	0.002
0.51500	0.24705	0.0020	11.1441	17.4575	0.0010	0.003
0.52000	0.27049	0.0023	14.7189	17.2897	0.0011	0.003
0.52500	0.29424	0.0025	18.4766	17.1250	0.0013	0.003
0.53000	0.31841	0.0028	22.4132	16.9634	0.0014	0.004
0.53500	0.34294	0.0032	26.7185	16.8049	0.0016	0.004
0.54000	0.36789	0.0035	31.0642	16.6493	0.0019	0.005
0.54500	0.39322	0.0039	35.9073	16.4964	0.0021	0.004
0.55000	0.41914	0.0044	40.0142	16.3466	0.0024	0.006
0.55500	0.44540	0.0049	44.5143	16.1993	0.0027	0.007
0.56000	0.47236	0.0054	48.9670	16.0547	0.0031	0.008
0.56500	0.49879	0.0059	53.1154	15.9124	0.0034	0.009
0.57000	0.52474	0.0065	56.8221	15.7730	0.0039	0.010

0.97000	0.09630	0.0071	59.9720	14.4159	0.0043	0.017
0.98000	0.10567	0.0074	67.8844	14.4011	0.0044	0.011
0.99000	0.11557	0.0084	74.1782	14.3844	0.0044	0.014
0.99500	0.12411	0.0091	84.0180	14.3388	0.0040	0.016
0.99900	0.13741	0.0102	88.9813	15.1103	0.0066	0.018
0.99950	0.14947	0.0111	88.1328	18.9946	0.0074	0.020
0.99990	0.16229	0.0120	82.5782	18.8809	0.0081	0.022
0.99995	0.17591	0.0130	80.1780	18.7187	0.0088	0.024
0.99999	0.19039	0.0141	57.0983	18.4180	0.0099	0.027
0.99999	0.20571	0.0152	53.2964	18.4010	0.0109	0.029
0.99999	0.22192	0.0164	48.8415	18.1850	0.0120	0.032
0.99999	0.23905	0.0177	43.0762	18.2708	0.0131	0.035
0.99999	0.25711	0.0190	37.9391	18.1545	0.0143	0.039
0.99999	0.27614	0.0204	32.8404	18.0879	0.0157	0.043
0.99999	0.29614	0.0219	27.7923	13.9160	0.0171	0.046
0.99999	0.31719	0.0235	23.0787	13.4317	0.0186	0.050
0.99999	0.33924	0.0251	18.4865	13.7282	0.0203	0.055
0.99999	0.36239	0.0268	15.0321	13.6322	0.0221	0.059
0.99999	0.38661	0.0286	11.4303	13.4198	0.0239	0.064
0.99999	0.41193	0.0305	8.9617	13.4180	0.0259	0.070
0.99999	0.43834	0.0325	6.8591	13.3195	0.0280	0.075
0.99999	0.46497	0.0344	5.1868	13.2214	0.0303	0.080
0.99999	0.49272	0.0366	4.0031	13.1250	0.0327	0.088
0.99999	0.52264	0.0389	2.9255	13.0298	0.0352	0.095
0.99999	0.55471	0.0412	2.1582	12.9362	0.0379	0.102
0.99999	0.58811	0.0436	1.6197	12.8438	0.0406	0.110
0.99999	0.62282	0.0461	1.2200	12.7527	0.0436	0.118
0.99999	0.65895	0.0486	0.9175	12.6629	0.0470	0.127
0.99999	0.69655	0.0513	0.7084	12.5741	0.0504	0.136
0.99999	0.73567	0.0541	0.5459	12.4870	0.0539	0.145
0.99999	0.77634	0.0570	0.3854	12.4009	0.0577	0.155
0.99999	0.81853	0.0600	0.2748	12.3180	0.0616	0.166
0.99999	0.86224	0.0629	0.2111	12.2322	0.0658	0.177
0.99999	0.90749	0.0661	0.1419	12.1496	0.0701	0.189
0.99999	0.95426	0.0693	0.1272	12.0680	0.0747	0.201
0.99999	1.00254	0.0726	0.0667	11.9874	0.0795	0.214
0.99999	1.05234	0.0766	0.0000	11.8299	0.0846	0.228
0.99999	1.10361	0.0809	0.0000	11.6762	0.0900	0.242
0.99999	1.15634	0.0854	0.0000	11.5266	0.0956	0.257
0.99999	1.21051	0.0901	0.0000	11.3807	0.1014	0.272
0.99999	1.26612	0.0950	0.0000	11.2384	0.1073	0.287
0.99999	1.32317	0.1000	0.0000	11.0997	0.1133	0.303
0.99999	1.38166	0.1050	0.0000	10.9644	0.1194	0.318
0.99999	1.44159	0.1100	0.0000	10.8323	0.1256	0.334
0.99999	1.50296	0.1150	0.0000	10.7034	0.1319	0.350
0.99999	1.56577	0.1200	0.0000	10.5774	0.1383	0.367
0.99999	1.63002	0.1250	0.0000	10.4544	0.1448	0.384
0.99999	1.69571	0.1300	0.0000	10.3344	0.1514	0.401
0.99999	1.76284	0.1350	0.0000	10.2170	0.1581	0.418
0.99999	1.83141	0.1400	0.0000	10.1022	0.1649	0.435
0.99999	1.90141	0.1450	0.0000	9.9900	0.1718	0.452
0.99999	1.97291	0.1500	0.0000	9.8801	0.1788	0.469
0.99999	2.04591	0.1550	0.0000	9.7730	0.1859	0.486
0.99999	2.12041	0.1600	0.0000	9.6689	0.1931	0.503
0.99999	2.19641	0.1650	0.0000	9.5674	0.2004	0.520
0.99999	2.27391	0.1700	0.0000	9.4684	0.2078	0.537
0.99999	2.35291	0.1750	0.0000	9.3719	0.2153	0.554
0.99999	2.43341	0.1800	0.0000	9.2779	0.2229	0.571
0.99999	2.51541	0.1850	0.0000	9.1864	0.2306	0.588
0.99999	2.59891	0.1900	0.0000	9.0974	0.2384	0.605
0.99999	2.68391	0.1950	0.0000	9.0109	0.2463	0.622
0.99999	2.77041	0.2000	0.0000	8.9269	0.2543	0.639
0.99999	2.85841	0.2050	0.0000	8.8454	0.2624	0.656
0.99999	2.94791	0.2100	0.0000	8.7664	0.2706	0.673
0.99999	3.03891	0.2150	0.0000	8.6899	0.2789	0.690
0.99999	3.13141	0.2200	0.0000	8.6159	0.2873	0.707
0.99999	3.22541	0.2250	0.0000	8.5444	0.2958	0.724
0.99999	3.32091	0.2300	0.0000	8.4754	0.3044	0.741
0.99999	3.41791	0.2350	0.0000	8.4089	0.3131	0.758
0.99999	3.51641	0.2400	0.0000	8.3449	0.3219	0.775
0.99999	3.61641	0.2450	0.0000	8.2834	0.3308	0.792
0.99999	3.71791	0.2500	0.0000	8.2244	0.3398	0.809
0.99999	3.82091	0.2550	0.0000	8.1679	0.3489	0.826
0.99999	3.92541	0.2600	0.0000	8.1139	0.3581	0.843
0.99999	4.03141	0.2650	0.0000	8.0624	0.3674	0.860
0.99999	4.13891	0.2700	0.0000	8.0134	0.3768	0.877
0.99999	4.24791	0.2750	0.0000	7.9669	0.3863	0.894
0.99999	4.35841	0.2800	0.0000	7.9229	0.3959	0.911
0.99999	4.47041	0.2850	0.0000	7.8814	0.4056	0.928
0.99999	4.58391	0.2900	0.0000	7.8424	0.4154	0.945
0.99999	4.69891	0.2950	0.0000	7.8059	0.4253	0.962
0.99999	4.81541	0.3000	0.0000	7.7719	0.4353	0.979
0.99999	4.93341	0.3050	0.0000	7.7404	0.4454	0.996
0.99999	5.05291	0.3100	0.0000	7.7114	0.4556	1.013
0.99999	5.17391	0.3150	0.0000	7.6849	0.4659	1.030
0.99999	5.29641	0.3200	0.0000	7.6609	0.4763	1.047
0.99999	5.42041	0.3250	0.0000	7.6384	0.4868	1.064
0.99999	5.54591	0.3300	0.0000	7.6174	0.4974	1.081
0.99999	5.67291	0.3350	0.0000	7.5989	0.5081	1.098
0.99999	5.80141	0.3400	0.0000	7.5819	0.5189	1.115
0.99999	5.93141	0.3450	0.0000	7.5664	0.5298	1.132
0.99999	6.06291	0.3500	0.0000	7.5524	0.5408	1.149
0.99999	6.19591	0.3550	0.0000	7.5404	0.5519	1.166
0.99999	6.33041	0.3600	0.0000	7.5304	0.5631	1.183
0.99999	6.46641	0.3650	0.0000	7.5224	0.5744	1.200
0.99999	6.60391	0.3700	0.0000	7.5164	0.5858	1.217
0.99999	6.74291	0.3750	0.0000	7.5124	0.5973	1.234
0.99999	6.88341	0.3800	0.0000	7.5104	0.6089	1.251
0.99999	7.02541	0.3850	0.0000	7.5104	0.6206	1.268
0.99999	7.16891	0.3900	0.0000	7.5124	0.6324	1.285
0.99999	7.31391	0.3950	0.0000	7.5164	0.6443	1.302
0.99999	7.46041	0.4000	0.0000	7.5224	0.6563	1.319
0.99999	7.60841	0.4050	0.0000	7.5304	0.6684	1.336
0.99999	7.75791	0.4100	0.0000	7.5404	0.6806	1.353
0.99999	7.90891	0.4150	0.0000	7.5524	0.6929	1.370
0.99999	8.06141	0.4200	0.0000	7.5664	0.7053	1.387
0.99999	8.21541	0.4250	0.0000	7.5819	0.7178	1.404
0.99999	8.37091	0.4300	0.0000	7.5989	0.7304	1.421
0.99999	8.52791	0.4350	0.0000	7.6174	0.7431	1.438
0.99999	8.68641	0.4400	0.0000	7.6384	0.7559	1.455
0.99999	8.84641	0.4450	0.0000	7.6609	0.7688	1.472
0.99999	9.00791	0.4500	0.0000	7.6849	0.7818	1.489
0.99999	9.17091	0.4550	0.0000	7.7114	0.7949	1.506
0.99999	9.33541	0.4600	0.0000	7.7404	0.8081	1.523
0.99999	9.50141	0.4650	0.0000	7.7719	0.8214	1.540
0.99999	9.66891	0.4700	0.0000	7.8059	0.8348	1.557
0.99999	9.83791	0.4750	0.0000	7.8424	0.8483	1.574
0.99999	10.00841	0.4800	0.0000	7.8814	0.8619	1.591
0.99999	10.18041	0.4850	0.0000	7.9229	0.8756	1.608
0.99999	10.35391	0.4900	0.0000	7.9669	0.8894	1.625
0.99999	10.52891	0.4950	0.0000	8.0134	0.9033	1.642
0.99999	10.70541	0.5000	0.0000	8.0624	0.9174	1.659
0.99999	10.88341	0.5050	0.0000	8.1134	0.9316	1.676
0.99999	11.06291	0.5100	0.0000	8.1674	0.9459	1.693
0.99999	11.24391	0.5150	0.0000	8.2244	0.9603	1.710
0.99999	11.42641	0.5200	0.0000	8.2834	0.9748	1.727
0.99999	11.61041	0.5250	0.0000	8.3449	0.9894	1.744
0.99999	11.79591	0.5300	0.0000	8.4089	1.0041	1.761
0.99999	11.98291	0.5350	0.0000	8.4754	1.0189	1.778
0.99999	12.17141	0.5400	0.0000	8.5444	1.0338	1.795
0.99999	12.36141	0.5450	0.0000	8.6159	1.0488	1.812
0.99999	12.55291	0.5500	0.0000	8.6899	1.0639	1.829
0.99999	12.74591	0.5550	0.0000	8.7664	1.0791	1.846
0.99999	12.94041	0.5600	0.0000	8.8454	1.0944	1.863
0.99999	13.13641	0.5650	0.0000	8.9269	1.1098	1.880
0.99999	13.33391	0.5700	0.0000	9.0109	1.1253	1.897
0.99999	13.53291	0.5750	0.0000	9.0974	1.1409	1.914
0.99999	13.73341	0.5800	0.0000	9.1864	1.1566	1.931
0.99999	13.93541	0.5850	0.0000	9.2779	1.1724	1.948
0.99999	14.13891	0.5900	0.0000	9.3719	1.1883	1.965
0.99999	14.34391	0.5950	0.0000	9.4684	1.2043	1.982
0.99999	14.55041	0.6000	0.0000	9.5674	1.2204	2.000
0.99999	14.75841	0.6050	0.0000	9.6684	1.2366	2.017
0.99999	14.96791	0.6100	0.0000	9.7719	1.2529	2.034
0.99999	15.17891	0.6150	0.0000	9.8784	1.2693	2.051
0.99999	15.39141	0.6200	0.0000	9.9869	1.2858	2.068
0.99999	15.60541	0.6250	0.0000	10.0974	1.3024	2.085
0.99999	15.82091	0.6300	0.0000	10.2109	1.3191	2.102
0.99999	16.03791	0.6350	0.0000	10.3269	1.3359	2.119
0.99999	16.25641	0.6400				

1.90000	12.11701	0.9123	0.0000	6.0087	5.2181	14.043
1.00000	12.00000	0.9021	0.0000	5.4184	6.4848	17.455
1.70000	11.16014	0.9007	0.0000	5.1154	7.8049	21.000
1.00000	11.00000	0.9000	0.0000	5.0280	9.1511	24.620
1.00000	11.00000	0.9000	0.0000	4.7740	10.4000	28.254
1.00000	11.00000	0.9000	0.0000	4.4441	11.8311	31.841
2.00000	11.00000	0.9000	0.0000	4.1111	13.1334	35.346
2.10000	11.00000	0.9000	0.0000	4.1111	14.3941	38.744
2.20000	11.00000	0.9000	0.0000	4.1111	15.6113	42.014
2.30000	11.00000	0.9000	0.0000	3.8367	16.7743	45.145
2.40000	11.00000	0.9000	0.0000	3.4977	17.8875	48.127
2.50000	10.00120	0.8001	0.0000	3.5704	18.9384	50.954
2.60000	10.23764	0.7593	0.0000	3.4535	19.9301	53.638
2.70000	9.67834	0.7100	0.0000	3.4535	20.8705	56.164
2.80000	9.13104	0.6764	0.0000	3.2464	21.7549	58.554
2.90000	8.60004	0.6371	0.0000	3.1544	22.5914	60.800
3.00000	8.09184	0.5994	0.0000	3.0600	23.3761	62.912
3.10000	7.60594	0.5634	0.0000	2.9694	24.1114	64.894
3.20000	7.14440	0.5292	0.0000	2.8824	24.8054	66.740
3.30000	6.70832	0.4969	0.0000	2.8015	25.4559	68.450
3.40000	6.29704	0.4664	0.0000	2.7264	26.0661	70.151
3.50000	5.91045	0.4378	0.0000	2.6574	26.6384	71.843
3.60000	5.54767	0.4109	0.0000	2.5944	27.1744	73.519
3.70000	5.20781	0.3854	0.0000	2.5364	27.6811	75.179
3.80000	4.88984	0.3622	0.0000	2.4834	28.1550	76.821
3.90000	4.59241	0.3402	0.0000	2.4354	28.6002	78.446
4.00000	4.31494	0.3194	0.0000	2.3924	29.0186	79.957
4.10000	4.05570	0.3004	0.0000	2.3544	29.4120	81.457
4.20000	3.81370	0.2824	0.0000	2.3214	29.7819	82.939
4.30000	3.58784	0.2650	0.0000	2.2924	30.1300	84.404
4.40000	3.37704	0.2484	0.0000	2.2674	30.4578	85.854
4.50000	3.18034	0.2320	0.0000	2.2454	30.7661	87.290
4.60000	2.99671	0.2169	0.0000	2.2264	31.0575	88.713
4.70000	2.82524	0.2034	0.0000	2.2114	31.3320	90.125
4.80000	2.66515	0.1914	0.0000	2.1994	31.5900	91.527
4.90000	2.51555	0.1794	0.0000	2.1894	31.8354	92.919
5.00000	2.37571	0.1684	0.0000	2.1814	32.0684	94.302
5.10000	2.24497	0.1572	0.0000	2.1750	32.2887	95.677
5.20000	2.12244	0.1464	0.0000	2.1702	32.4962	97.043
5.30000	2.00814	0.1364	0.0000	2.1664	32.6914	98.399
5.40000	1.90099	0.1264	0.0000	2.1634	32.8754	99.746
5.50000	1.80054	0.1164	0.0000	2.1614	33.0484	101.084
5.60000	1.70684	0.1064	0.0000	2.1604	33.2114	102.413
5.70000	1.61812	0.1014	0.0000	2.1604	33.3644	103.733
5.80000	1.53527	0.1014	0.0000	2.1604	33.5074	105.044
5.90000	1.45747	0.1014	0.0000	2.1604	33.6404	106.346
6.00000	1.38439	0.1025	0.0000	2.1614	33.7634	107.639
6.10000	1.31564	0.0975	0.0000	2.1624	33.8764	108.923
6.20000	1.25107	0.0927	0.0000	2.1634	33.9794	110.198
6.30000	1.19024	0.0882	0.0000	2.1644	34.0724	111.464
6.40000	1.13331	0.0839	0.0000	2.1654	34.1554	112.721
6.50000	1.07997	0.0799	0.0000	2.1664	34.2284	113.969
6.60000	1.02921	0.0762	0.0000	2.1674	34.2914	115.208
6.70000	0.98027	0.0724	0.0000	2.1684	34.3444	116.438
6.80000	0.93251	0.0689	0.0000	2.1694	34.3874	117.659
6.90000	0.88622	0.0661	0.0000	2.1704	34.4204	118.871
7.00000	0.84197	0.0631	0.0000	2.1714	34.4434	120.074
7.10000	0.79924	0.0603	0.0000	2.1724	34.4564	121.269
7.20000	0.75754	0.0574	0.0000	2.1734	34.4594	122.456
7.30000	0.71634	0.0545	0.0000	2.1744	34.4524	123.634
7.40000	0.67554	0.0516	0.0000	2.1754	34.4354	124.803
7.50000	0.63514	0.0487	0.0000	2.1764	34.4084	125.963
7.60000	0.59514	0.0458	0.0000	2.1774	34.3714	127.114
7.70000	0.55554	0.0429	0.0000	2.1784	34.3244	128.256
7.80000	0.51634	0.0400	0.0000	2.1794	34.2774	129.389
7.90000	0.47754	0.0371	0.0000	2.1804	34.2204	130.513
8.00000	0.43914	0.0342	0.0000	2.1814	34.1634	131.628
8.10000	0.40114	0.0313	0.0000	2.1824	34.1064	132.734
8.20000	0.36354	0.0284	0.0000	2.1834	34.0494	133.831
8.30000	0.32634	0.0255	0.0000	2.1844	33.9924	134.919
8.40000	0.28954	0.0226	0.0000	2.1854	33.9354	135.998
8.50000	0.25314	0.0197	0.0000	2.1864	33.8784	137.068
8.60000	0.21714	0.0168	0.0000	2.1874	33.8214	138.129
8.70000	0.18154	0.0139	0.0000	2.1884	33.7644	139.181
8.80000	0.14634	0.0110	0.0000	2.1894	33.7074	140.224
8.90000	0.11154	0.0081	0.0000	2.1904	33.6504	141.258
9.00000	0.07714	0.0052	0.0000	2.1914	33.5934	142.283
9.10000	0.04314	0.0023	0.0000	2.1924	33.5364	143.299
9.20000	0.00954	0.0004	0.0000	2.1934	33.4794	144.306
9.30000	0.00000	0.0000	0.0000	2.1944	33.4224	145.304
9.40000	0.00000	0.0000	0.0000	2.1954	33.3654	146.293
9.50000	0.00000	0.0000	0.0000	2.1964	33.3084	147.273
9.60000	0.00000	0.0000	0.0000	2.1974	33.2514	148.244
9.70000	0.00000	0.0000	0.0000	2.1984	33.1944	149.206
9.80000	0.00000	0.0000	0.0000	2.1994	33.1374	150.159
9.90000	0.00000	0.0000	0.0000	2.2004	33.0804	151.103
10.00000	0.00000	0.0000	0.0000	2.2014	33.0234	152.038
10.10000	0.00000	0.0000	0.0000	2.2024	32.9664	152.964
10.20000	0.00000	0.0000	0.0000	2.2034	32.9094	153.881
10.30000	0.00000	0.0000	0.0000	2.2044	32.8524	154.789
10.40000	0.00000	0.0000	0.0000	2.2054	32.7954	155.688
10.50000	0.00000	0.0000	0.0000	2.2064	32.7384	156.578
10.60000	0.00000	0.0000	0.0000	2.2074	32.6814	157.459
10.70000	0.00000	0.0000	0.0000	2.2084	32.6244	158.331
10.80000	0.00000	0.0000	0.0000	2.2094	32.5674	159.194
10.90000	0.00000	0.0000	0.0000	2.2104	32.5104	160.048
11.00000	0.00000	0.0000	0.0000	2.2114	32.4534	160.893
11.10000	0.00000	0.0000	0.0000	2.2124	32.3964	161.729
11.20000	0.00000	0.0000	0.0000	2.2134	32.3394	162.556
11.30000	0.00000	0.0000	0.0000	2.2144	32.2824	163.374
11.40000	0.00000	0.0000	0.0000	2.2154	32.2254	164.183
11.50000	0.00000	0.0000	0.0000	2.2164	32.1684	164.983
11.60000	0.00000	0.0000	0.0000	2.2174	32.1114	165.774
11.70000	0.00000	0.0000	0.0000	2.2184	32.0544	166.556
11.80000	0.00000	0.0000	0.0000	2.2194	31.9974	167.329
11.90000	0.00000	0.0000	0.0000	2.2204	31.9404	168.093
12.00000	0.00000	0.0000	0.0000	2.2214	31.8834	168.848

VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, G.R.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1374.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1650.0  
DEGREES FAHRENHEIT = 2510.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.12 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 10.65 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 3.39 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.003 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 89.614 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.243 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.7564 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.2133 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 47.07 WATT/CM<sup>2</sup> OR 4.20230E+08 ERG/SEC/CM<sup>2</sup> OR 1.00430E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 15.75 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M \* K/TAM<sup>2</sup> .

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1374.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1650.0  
DEGREES FAHRENHEIT = 2510.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATAM	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00011	8.8793E-06	0.0000	24.4081	1.7211E-06	0.000
0.35500	0.00014	9.1018E-06	0.0000	24.5583	2.3449E-06	0.000
0.36000	0.00019	1.1936E-05	0.0000	24.7172	3.1706E-06	0.000
0.36500	0.00024	1.5524E-05	0.0000	23.8854	4.2443E-06	0.000
0.37000	0.00032	2.0027E-05	0.0000	23.5427	5.6396E-06	0.000
0.37500	0.00040	2.5640E-05	0.0000	23.2445	7.4295E-06	0.000
0.38000	0.00051	3.2544E-05	0.0000	22.9126	9.7123E-06	0.000
0.38500	0.00064	4.1117E-05	0.0000	22.6444	1.2403E-05	0.000
0.39000	0.00081	5.1533E-05	0.0000	22.3541	1.6337E-05	0.000
0.39500	0.00101	6.4167E-05	0.0000	22.0713	2.0776E-05	0.000
0.40000	0.00125	7.9400E-05	0.0003	21.7954	2.6410E-05	0.000
0.40500	0.00154	9.7457E-05	0.0008	21.5264	3.3350E-05	0.000
0.41000	0.00188	0.0001	0.0015	21.2639	4.1881E-05	0.000
0.41500	0.00229	0.0001	0.0034	21.0077	5.2271E-05	0.000
0.42000	0.00277	0.0002	0.0075	20.7574	6.4700E-05	0.000
0.42500	0.00333	0.0002	0.0145	20.5134	7.9067E-05	0.000
0.43000	0.00398	0.0003	0.0314	20.2748	9.4307E-05	0.000
0.43500	0.00475	0.0003	0.0582	20.0414	0.0001	0.000
0.44000	0.00563	0.0004	0.0881	19.8140	0.0001	0.000
0.44500	0.00665	0.0004	0.1311	19.5914	0.0002	0.000
0.45000	0.00782	0.0005	0.2020	19.3737	0.0002	0.001
0.45500	0.00915	0.0006	0.2987	19.1608	0.0003	0.001
0.46000	0.01067	0.0007	0.4353	18.9524	0.0003	0.001
0.46500	0.01239	0.0008	0.6236	18.7488	0.0004	0.001
0.47000	0.01434	0.0009	0.8874	18.5493	0.0004	0.001
0.47500	0.01653	0.0011	1.2593	18.3541	0.0005	0.001
0.48000	0.01900	0.0012	1.7956	18.1629	0.0006	0.001
0.48500	0.02175	0.0014	2.4998	17.9756	0.0007	0.002
0.49000	0.02481	0.0016	3.5113	17.7922	0.0008	0.002
0.49500	0.02824	0.0018	4.9548	17.6125	0.0009	0.002
0.50000	0.03203	0.0020	7.0352	17.4368	0.0011	0.003
0.50500	0.03622	0.0023	10.0239	17.2637	0.0013	0.003
0.51000	0.04084	0.0026	13.9475	17.0945	0.0015	0.003
0.51500	0.04591	0.0029	18.9823	16.9285	0.0017	0.004
0.52000	0.05144	0.0033	24.4550	16.7657	0.0019	0.005
0.52500	0.05747	0.0037	31.4452	16.6061	0.0022	0.005
0.53000	0.06422	0.0041	37.6429	16.4494	0.0025	0.006
0.53500	0.07164	0.0045	44.4403	16.2957	0.0028	0.007
0.54000	0.07932	0.0050	51.4551	16.1444	0.0032	0.008
0.54500	0.08784	0.0056	58.5355	15.9947	0.0036	0.009
0.55000	0.09705	0.0062	65.6863	15.8472	0.0041	0.010
0.55500	0.10700	0.0068	72.7590	15.7024	0.0046	0.011
0.56000	0.11771	0.0075	79.6627	15.5602	0.0052	0.012
0.56500	0.12922	0.0082	86.4275	15.4204	0.0058	0.014
0.57000	0.14154	0.0090	91.6522	15.2831	0.0065	0.015

0.57500	0.15401	0.0090	94.1216	19.1421	0.0072	0.017
0.58000	0.16000	0.0107	99.9509	19.0314	0.0080	0.019
0.58500	0.16600	0.0117	107.7857	18.9020	0.0088	0.021
0.59000	0.17200	0.0127	103.0120	18.7764	0.0096	0.023
0.59500	0.17800	0.0134	102.6560	18.6524	0.0100	0.026
0.60000	0.18400	0.0140	100.9907	18.5301	0.0100	0.029
0.60500	0.19000	0.0149	99.1873	18.4102	0.0112	0.032
0.61000	0.19600	0.0154	94.0510	18.2921	0.0146	0.035
0.61500	0.20200	0.0164	94.0140	18.1750	0.0140	0.038
0.62000	0.20800	0.0203	92.7041	18.0616	0.0175	0.042
0.62500	0.21400	0.0214	74.4044	17.9491	0.0192	0.044
0.63000	0.22000	0.0234	44.3817	17.8394	0.0210	0.049
0.63500	0.22600	0.0251	30.2645	17.7304	0.0229	0.054
0.64000	0.23200	0.0268	50.2978	17.6229	0.0249	0.059
0.64500	0.23800	0.0287	42.3984	17.5164	0.0271	0.064
0.65000	0.24400	0.0306	33.0949	17.4126	0.0294	0.070
0.65500	0.25000	0.0327	28.3251	17.3102	0.0319	0.074
0.66000	0.25600	0.0348	27.7181	17.2094	0.0346	0.082
0.66500	0.26200	0.0370	17.8206	17.1101	0.0374	0.089
0.67000	0.26800	0.0393	13.4612	17.0122	0.0404	0.094
0.67500	0.27400	0.0417	10.2654	16.9159	0.0436	0.104
0.68000	0.28000	0.0442	8.0411	16.8209	0.0470	0.112
0.68500	0.28600	0.0468	5.9527	16.7273	0.0506	0.120
0.69000	0.29200	0.0495	4.3819	16.6351	0.0543	0.129
0.69500	0.29800	0.0522	3.1881	16.5449	0.0583	0.139
0.70000	0.30400	0.0551	2.4199	16.4564	0.0626	0.149
0.70500	0.31000	0.0581	1.8043	16.3691	0.0670	0.160
0.71000	0.31600	0.0612	1.3740	16.2832	0.0717	0.171
0.71500	0.32200	0.0644	1.0340	16.1984	0.0767	0.182
0.72000	0.32800	0.0677	0.7870	16.1152	0.0819	0.195
0.72500	0.33400	0.0711	0.6324	16.0329	0.0873	0.204
0.73000	0.34000	0.0746	0.5392	15.9524	0.0931	0.221
0.73500	0.34600	0.0782	0.4347	15.8714	0.0991	0.234
0.74000	0.35200	0.0819	0.3629	15.7914	0.1054	0.251
0.74500	0.35800	0.0857	0.3134	15.7102	0.1120	0.266
0.75000	0.36400	0.0894	0.2849	15.6291	0.1189	0.281
0.75500	0.37000	0.0932	0.2600	15.5474	0.1260	0.318
0.76000	0.37600	0.0971	0.2380	15.4659	0.1336	0.356
0.76500	0.38200	0.1010	0.2180	15.3825	0.1417	0.399
0.77000	0.38800	0.1051	0.2000	15.2989	0.1499	0.449
0.77500	0.39400	0.1094	0.1840	15.2159	0.1583	0.491
0.78000	0.40000	0.1138	0.1700	15.1324	0.1669	0.543
0.78500	0.40600	0.1184	0.1580	15.0484	0.1757	0.599
0.79000	0.41200	0.1231	0.1480	14.9639	0.1849	0.659
0.79500	0.41800	0.1280	0.1390	14.8789	0.1944	0.723
0.80000	0.42400	0.1331	0.1320	14.7934	0.2043	0.791
0.80500	0.43000	0.1384	0.1260	14.7074	0.2146	0.864
0.81000	0.43600	0.1439	0.1210	14.6209	0.2254	0.941
0.81500	0.44200	0.1496	0.1170	14.5339	0.2367	1.023
0.82000	0.44800	0.1554	0.1140	14.4464	0.2484	1.109
0.82500	0.45400	0.1614	0.1110	14.3584	0.2606	1.200
0.83000	0.46000	0.1676	0.1090	14.2699	0.2734	1.296
0.83500	0.46600	0.1740	0.1070	14.1809	0.2867	1.397
0.84000	0.47200	0.1806	0.1060	14.0914	0.3004	1.503
0.84500	0.47800	0.1874	0.1050	14.0014	0.3146	1.615
0.85000	0.48400	0.1944	0.1040	13.9109	0.3294	
0.85500	0.49000	0.2016	0.1030	13.8199	0.3446	
0.86000	0.49600	0.2090	0.1020	13.7284	0.3604	
0.86500	0.50200	0.2166	0.1010	13.6364	0.3767	
0.87000	0.50800	0.2244	0.1000	13.5439	0.3934	
0.87500	0.51400	0.2324	0.1000	13.4509	0.4106	
0.88000	0.52000	0.2406	0.1000	13.3574	0.4284	
0.88500	0.52600	0.2490	0.1000	13.2634	0.4467	
0.89000	0.53200	0.2576	0.1000	13.1689	0.4654	
0.89500	0.53800	0.2664	0.1000	13.0739	0.4846	
0.90000	0.54400	0.2754	0.1000	12.9784	0.5044	
0.90500	0.55000	0.2846	0.1000	12.8824	0.5246	
0.91000	0.55600	0.2940	0.1000	12.7859	0.5454	
0.91500	0.56200	0.3036	0.1000	12.6889	0.5667	
0.92000	0.56800	0.3134	0.1000	12.5914	0.5884	
0.92500	0.57400	0.3234	0.1000	12.4934	0.6106	
0.93000	0.58000	0.3336	0.1000	12.3949	0.6334	
0.93500	0.58600	0.3440	0.1000	12.2959	0.6567	
0.94000	0.59200	0.3546	0.1000	12.1964	0.6804	
0.94500	0.59800	0.3654	0.1000	12.0964	0.7046	
0.95000	0.60400	0.3764	0.1000	11.9959	0.7294	
0.95500	0.61000	0.3876	0.1000	11.8949	0.7546	
0.96000	0.61600	0.3990	0.1000	11.7934	0.7804	
0.96500	0.62200	0.4106	0.1000	11.6914	0.8067	
0.97000	0.62800	0.4224	0.1000	11.5889	0.8334	
0.97500	0.63400	0.4344	0.1000	11.4859	0.8606	
0.98000	0.64000	0.4466	0.1000	11.3824	0.8884	
0.98500	0.64600	0.4590	0.1000	11.2784	0.9167	
0.99000	0.65200	0.4716	0.1000	11.1739	0.9454	
0.99500	0.65800	0.4844	0.1000	11.0689	0.9746	
1.00000	0.66400	0.4974	0.1000	10.9634	1.0044	

0.95000	0.66000	0.3174	0.0000	0.1740	0.7274	1.7331
0.95500	0.66600	0.3214	0.0000	0.1740	0.7274	1.859
0.96000	0.67200	0.3254	0.0000	0.1740	0.7274	1.979
0.96500	0.67800	0.3294	0.0000	0.1740	0.7274	2.112
0.97000	0.68400	0.3334	0.0000	0.1740	0.7274	2.249
0.97500	0.69000	0.3374	0.0000	0.1740	0.7274	2.392
0.98000	0.69600	0.3414	0.0000	0.1740	0.7274	2.540
0.98500	0.70200	0.3454	0.0000	0.1740	0.7274	2.694
0.99000	0.70800	0.3494	0.0000	0.1740	0.7274	2.853
0.99500	0.71400	0.3534	0.0000	0.1740	0.7274	3.014
1.00000	0.72000	0.3574	0.0000	0.1740	0.7274	3.184
1.00500	0.72600	0.3614	0.0000	0.1740	0.7274	3.364
1.01000	0.73200	0.3654	0.0000	0.1740	0.7274	3.544
1.01500	0.73800	0.3694	0.0000	0.1740	0.7274	3.731
1.02000	0.74400	0.3734	0.0000	0.1740	0.7274	3.921
1.02500	0.75000	0.3774	0.0000	0.1740	0.7274	4.114
1.03000	0.75600	0.3814	0.0000	0.1740	0.7274	4.329
1.03500	0.76200	0.3854	0.0000	0.1740	0.7274	4.530
1.04000	0.76800	0.3894	0.0000	0.1740	0.7274	4.743
1.04500	0.77400	0.3934	0.0000	0.1740	0.7274	4.961
1.05000	0.78000	0.3974	0.0000	0.1740	0.7274	5.184
1.05500	0.78600	0.4014	0.0000	0.1740	0.7274	5.413
1.06000	0.79200	0.4054	0.0000	0.1740	0.7274	5.646
1.06500	0.79800	0.4094	0.0000	0.1740	0.7274	5.884
1.07000	0.80400	0.4134	0.0000	0.1740	0.7274	6.128
1.07500	0.81000	0.4174	0.0000	0.1740	0.7274	6.374
1.08000	0.81600	0.4214	0.0000	0.1740	0.7274	6.629
1.08500	0.82200	0.4254	0.0000	0.1740	0.7274	6.884
1.09000	0.82800	0.4294	0.0000	0.1740	0.7274	7.146
1.09500	0.83400	0.4334	0.0000	0.1740	0.7274	7.414
1.10000	0.84000	0.4374	0.0000	0.1740	0.7274	7.684
1.10500	0.84600	0.4414	0.0000	0.1740	0.7274	7.954
1.11000	0.85200	0.4454	0.0000	0.1740	0.7274	8.224
1.11500	0.85800	0.4494	0.0000	0.1740	0.7274	8.494
1.12000	0.86400	0.4534	0.0000	0.1740	0.7274	8.764
1.12500	0.87000	0.4574	0.0000	0.1740	0.7274	9.034
1.13000	0.87600	0.4614	0.0000	0.1740	0.7274	9.304
1.13500	0.88200	0.4654	0.0000	0.1740	0.7274	9.574
1.14000	0.88800	0.4694	0.0000	0.1740	0.7274	9.844
1.14500	0.89400	0.4734	0.0000	0.1740	0.7274	10.114
1.15000	0.90000	0.4774	0.0000	0.1740	0.7274	10.384
1.15500	0.90600	0.4814	0.0000	0.1740	0.7274	10.654
1.16000	0.91200	0.4854	0.0000	0.1740	0.7274	10.924
1.16500	0.91800	0.4894	0.0000	0.1740	0.7274	11.194
1.17000	0.92400	0.4934	0.0000	0.1740	0.7274	11.464
1.17500	0.93000	0.4974	0.0000	0.1740	0.7274	11.734
1.18000	0.93600	0.5014	0.0000	0.1740	0.7274	12.004
1.18500	0.94200	0.5054	0.0000	0.1740	0.7274	12.274
1.19000	0.94800	0.5094	0.0000	0.1740	0.7274	12.544
1.19500	0.95400	0.5134	0.0000	0.1740	0.7274	12.814
1.20000	0.96000	0.5174	0.0000	0.1740	0.7274	13.084
1.20500	0.96600	0.5214	0.0000	0.1740	0.7274	13.354
1.21000	0.97200	0.5254	0.0000	0.1740	0.7274	13.624
1.21500	0.97800	0.5294	0.0000	0.1740	0.7274	13.894
1.22000	0.98400	0.5334	0.0000	0.1740	0.7274	14.164
1.22500	0.99000	0.5374	0.0000	0.1740	0.7274	14.434
1.23000	0.99600	0.5414	0.0000	0.1740	0.7274	14.704
1.23500	1.00200	0.5454	0.0000	0.1740	0.7274	14.974
1.24000	1.00800	0.5494	0.0000	0.1740	0.7274	15.244
1.24500	1.01400	0.5534	0.0000	0.1740	0.7274	15.514
1.25000	1.02000	0.5574	0.0000	0.1740	0.7274	15.784
1.25500	1.02600	0.5614	0.0000	0.1740	0.7274	16.054
1.26000	1.03200	0.5654	0.0000	0.1740	0.7274	16.324

1.50000	14.77744	0.9385	0.0000	5.4294	6.5641	15.620
1.60000	15.40954	0.9764	0.0000	5.4724	6.6744	16.210
1.70000	15.70564	0.9974	0.0000	5.5449	6.8340	22.927
1.80000	15.72244	0.9985	0.0000	6.4412	11.2043	26.671
1.90000	15.51789	0.9855	0.0000	6.4357	12.7719	30.392
2.00000	15.14401	0.9618	0.0000	6.4154	14.1062	34.043
2.10000	14.64687	0.9302	0.0000	6.3179	15.7046	37.500
2.20000	14.06452	0.8932	0.0000	6.1396	17.2320	41.007
2.30000	13.42801	0.8528	0.0000	5.8781	18.6077	44.270
2.40000	12.74165	0.8104	0.0000	5.7311	19.9174	47.395
2.50000	12.04414	0.7675	0.0000	5.5971	21.1597	50.352
2.60000	11.40941	0.7246	0.0000	5.4747	22.3343	53.147
2.70000	10.74831	0.6826	0.0000	5.3621	23.4421	55.783
2.80000	10.10755	0.6419	0.0000	5.2584	24.4844	58.266
2.90000	9.48227	0.6028	0.0000	5.1627	25.4644	60.595
3.00000	8.87560	0.5656	0.0000	5.0742	26.3841	62.784
3.10000	8.28830	0.5303	0.0000	4.9920	27.2465	64.836
3.20000	7.72404	0.4969	0.0000	4.9157	28.0550	66.764
3.30000	7.18293	0.4655	0.0000	4.8444	28.8124	68.582
3.40000	6.66626	0.4361	0.0000	4.7780	29.5220	70.290
3.50000	6.17311	0.4085	0.0000	4.7159	30.1866	71.892
3.60000	5.70262	0.3827	0.0000	4.6574	30.8093	73.314
3.70000	5.25474	0.3587	0.0000	4.6030	31.3920	74.702
3.80000	4.82906	0.3362	0.0000	4.5515	31.9387	76.064
3.90000	4.42471	0.3153	0.0000	4.5031	32.4524	77.324
4.00000	4.04287	0.2954	0.0000	4.4574	32.9334	78.568
4.10000	3.69209	0.2777	0.0000	4.4141	33.3847	79.698
4.20000	3.37265	0.2608	0.0000	4.3734	33.8084	80.651
4.30000	3.08512	0.2450	0.0000	4.3349	34.2065	81.530
4.40000	2.82730	0.2304	0.0000	4.2983	34.5806	82.380
4.50000	2.59824	0.2167	0.0000	4.2635	34.9324	83.175
4.60000	2.39512	0.2040	0.0000	4.2304	35.2614	83.913
4.70000	2.21592	0.1921	0.0000	4.1990	35.5753	84.595
4.80000	2.05810	0.1811	0.0000	4.1690	35.8740	85.234
4.90000	1.92097	0.1707	0.0000	4.1405	36.1579	85.834
5.00000	1.80265	0.1611	0.0000	4.1132	36.4265	86.392
5.10000	1.70137	0.1521	0.0000	4.0872	36.6803	86.912
5.20000	1.61510	0.1437	0.0000	4.0622	36.9206	87.392
5.30000	1.54194	0.1359	0.0000	4.0384	37.1486	87.832
5.40000	1.48000	0.1285	0.0000	4.0154	37.3644	88.232
5.50000	1.42724	0.1217	0.0000	3.9937	37.5687	88.602
5.60000	1.38255	0.1152	0.0000	3.9727	37.7624	88.942
5.70000	1.34421	0.1092	0.0000	3.9524	37.9454	89.252
5.80000	1.31192	0.1035	0.0000	3.9331	38.1179	89.532
5.90000	1.28421	0.0982	0.0000	3.9145	38.2806	89.782
6.00000	1.26053	0.0933	0.0000	3.8964	38.4334	90.012
6.10000	1.24037	0.0884	0.0000	3.8793	38.5764	90.212
6.20000	1.22322	0.0842	0.0000	3.8627	38.7099	90.382
6.30000	1.20857	0.0801	0.0000	3.8464	38.8334	90.522
6.40000	1.19592	0.0762	0.0000	3.8312	38.9469	90.632
6.50000	1.18467	0.0725	0.0000	3.8162	39.0509	90.722
6.60000	1.17452	0.0691	0.0000	3.8014	39.1454	90.792
6.70000	1.16517	0.0658	0.0000	3.7870	39.2304	90.842
6.80000	1.15642	0.0627	0.0000	3.7724	39.3064	90.872
6.90000	1.14824	0.0594	0.0000	3.7584	39.3734	90.892

7.00000	0.49939	0.0571	0.0000	1.7444	39.5072	94.011
7.10000	0.45874	0.0545	0.0000	1.7344	39.5941	94.290
7.20000	0.42040	0.0521	0.0000	1.7247	39.6790	94.480
7.30000	0.38410	0.0498	0.0000	1.7133	39.7592	94.611
7.40000	0.34975	0.0476	0.0000	1.7021	39.8350	94.704
7.50000	0.31721	0.0454	0.0000	1.6914	39.9092	94.768
7.60000	0.28641	0.0436	0.0000	1.6809	39.9794	94.812
7.70000	0.25724	0.0417	0.0000	1.6707	40.0464	94.848
7.80000	0.22957	0.0400	0.0000	1.6606	40.1109	94.878
7.90000	0.20331	0.0383	0.0000	1.6513	40.1725	94.902
8.00000	0.17839	0.0367	0.0000	1.6419	40.2316	94.922
8.10000	0.15471	0.0352	0.0000	1.6329	40.2884	94.938
8.20000	0.13225	0.0334	0.0000	1.6241	40.3424	94.950
8.30000	0.11084	0.0324	0.0000	1.6155	40.3947	94.958
8.40000	0.09054	0.0312	0.0000	1.6071	40.4444	94.962
8.50000	0.07123	0.0299	0.0000	1.5990	40.4919	94.962
8.60000	0.05281	0.0284	0.0000	1.5911	40.5369	94.958
8.70000	0.03532	0.0266	0.0000	1.5834	40.5795	94.942
8.80000	0.01861	0.0246	0.0000	1.5754	40.6194	94.912
8.90000	0.00272	0.0224	0.0000	1.5685	40.6567	94.862
9.00000	0.14754	0.0204	0.0000	1.5613	40.6907	94.792
9.10000	0.17309	0.0237	0.0000	1.5544	40.7204	94.702
9.20000	0.20929	0.0270	0.0000	1.5474	40.7464	94.592
9.30000	0.24612	0.0304	0.0000	1.5409	40.7684	94.462
9.40000	0.28353	0.0339	0.0000	1.5344	40.7864	94.312
9.50000	0.32151	0.0374	0.0000	1.5284	40.8004	94.142
9.60000	0.35902	0.0409	0.0000	1.5224	40.8104	93.952
9.70000	0.39604	0.0444	0.0000	1.5164	40.8164	93.742
9.80000	0.43253	0.0479	0.0000	1.5104	40.8184	93.512
9.90000	0.46844	0.0514	0.0000	1.5044	40.8164	93.262
10.00000	0.50374	0.0549	0.0000	1.4984	40.8104	92.992
10.10000	0.53844	0.0584	0.0000	1.4924	40.8004	92.702
10.20000	0.57253	0.0619	0.0000	1.4864	40.7864	92.392
10.30000	0.60604	0.0654	0.0000	1.4804	40.7684	92.062
10.40000	0.63894	0.0689	0.0000	1.4744	40.7464	91.712
10.50000	0.67124	0.0724	0.0000	1.4684	40.7204	91.342
10.60000	0.70294	0.0759	0.0000	1.4624	40.6907	90.952
10.70000	0.73404	0.0794	0.0000	1.4564	40.6567	90.542
10.80000	0.76453	0.0829	0.0000	1.4504	40.6194	90.112
10.90000	0.79444	0.0864	0.0000	1.4444	40.5795	89.662
11.00000	0.82374	0.0899	0.0000	1.4384	40.5369	89.192
11.10000	0.85244	0.0934	0.0000	1.4324	40.4919	88.702
11.20000	0.88053	0.0969	0.0000	1.4264	40.4444	88.192
11.30000	0.90804	0.1004	0.0000	1.4204	40.3947	87.662
11.40000	0.93494	0.1039	0.0000	1.4144	40.3424	87.112
11.50000	0.96124	0.1074	0.0000	1.4084	40.2884	86.542
11.60000	0.98694	0.1109	0.0000	1.4024	40.2316	85.952
11.70000	1.01204	0.1144	0.0000	1.3964	40.1725	85.342
11.80000	1.03653	0.1179	0.0000	1.3904	40.1109	84.712
11.90000	1.06044	0.1214	0.0000	1.3844	40.0464	84.062
12.00000	1.08374	0.1249	0.0000	1.3784	39.9794	83.392

VISIBILITY AND OTHER DATA FOR PLANCK RADIATOR, MECHANICS DIVISION, D.O.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 1424.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1700.0  
DEGREES FAHRENHEIT = 2600.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.17 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 14.40 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 5.25 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.004 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 94.449 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.344 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0007 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.1402 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 47.35 WATT/CM<sup>2</sup> OR 4.735100E+08 ENG/SEC/CM<sup>2</sup> OR 1.131790E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 14.28 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta W = W \Delta M$  .

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 1424.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1700.0  
DEGREES FAHRENHEIT = 2600.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATTS	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00073	1.2328E-05	0.0000	24.1765	3.7033E-06	0.000
0.35500	0.00073	1.4144E-05	0.0000	23.4360	4.9978E-06	0.000
0.36000	0.00073	2.0959E-05	0.0000	23.5049	6.6854E-06	0.000
0.36500	0.00073	2.6964E-05	0.0000	23.1929	8.4671E-06	0.000
0.37000	0.00061	3.4896E-05	0.0000	22.4494	1.1666E-05	0.000
0.37500	0.00049	4.3798E-05	0.0000	22.5447	1.5228E-05	0.000
0.38000	0.00101	5.3111E-05	0.0000	22.2674	1.9730E-05	0.000
0.38500	0.00124	6.4936E-05	0.0000	21.9784	2.5370E-05	0.000
0.39000	0.00147	8.3465E-05	0.0000	21.6944	3.2429E-05	0.000
0.39500	0.00191	0.00001	0.0000	21.4222	4.1145E-05	0.000
0.40000	0.00237	0.0001	0.0004	21.1544	5.1862E-05	0.000
0.40500	0.00297	0.0002	0.0016	20.8932	6.5020E-05	0.000
0.41000	0.00351	0.0002	0.0029	20.6385	8.1066E-05	0.000
0.41500	0.00424	0.0002	0.0043	20.3904	0.0001	0.000
0.42000	0.00519	0.0003	0.0079	20.1471	0.0001	0.000
0.42500	0.00604	0.0003	0.0130	19.9107	0.0002	0.000
0.43000	0.00723	0.0004	0.0202	19.6784	0.0002	0.000
0.43500	0.00854	0.0005	0.0304	19.4523	0.0002	0.000
0.44000	0.01004	0.0006	0.0437	19.2313	0.0003	0.001
0.44500	0.01183	0.0006	0.0604	19.0159	0.0003	0.001
0.45000	0.01382	0.0008	0.0809	18.8039	0.0004	0.001
0.45500	0.01609	0.0009	0.1067	18.5973	0.0005	0.001
0.46000	0.01863	0.0010	0.1391	18.3941	0.0006	0.001
0.46500	0.02151	0.0012	0.1794	18.1973	0.0007	0.001
0.47000	0.02475	0.0014	0.2313	18.0038	0.0008	0.002
0.47500	0.02837	0.0016	0.2965	17.8142	0.0009	0.002
0.48000	0.03241	0.0018	0.3764	17.6287	0.0011	0.002
0.48500	0.03691	0.0020	0.4714	17.4469	0.0012	0.001
0.49000	0.04189	0.0023	0.5926	17.2680	0.0014	0.003
0.49500	0.04741	0.0026	0.7417	17.0945	0.0016	0.003
0.50000	0.05349	0.0029	0.9249	16.9235	0.0019	0.004
0.50500	0.06014	0.0033	1.1480	16.7560	0.0022	0.005
0.51000	0.06741	0.0037	1.4167	16.5917	0.0025	0.005
0.51500	0.07544	0.0041	1.7387	16.4304	0.0029	0.006
0.52000	0.08430	0.0046	2.1207	16.2724	0.0033	0.007
0.52500	0.09393	0.0051	2.5693	16.1174	0.0037	0.008
0.53000	0.10441	0.0057	3.0907	15.9656	0.0042	0.009
0.53500	0.11580	0.0063	3.6914	15.8164	0.0047	0.010
0.54000	0.12777	0.0070	4.3729	15.6699	0.0054	0.011
0.54500	0.14061	0.0077	5.1469	15.5262	0.0060	0.013
0.55000	0.15479	0.0085	6.0185	15.3850	0.0068	0.014
0.55500	0.16944	0.0093	7.0000	15.2464	0.0076	0.016
0.56000	0.18467	0.0102	8.1000	15.1103	0.0085	0.018
0.56500	0.20038	0.0111	9.3364	14.9764	0.0094	0.020
0.57000	0.22201	0.0121	10.7184	14.8452	0.0105	0.022

0.57500	0.24180	0.0137	150.4507	14.7161	0.0117	0.029
0.58000	0.24284	0.0144	145.4205	14.5493	0.0129	0.027
0.58500	0.24394	0.0154	138.4917	14.4044	0.0143	0.030
0.59000	0.24509	0.0169	130.0849	14.2820	0.0158	0.031
0.59500	0.24629	0.0183	120.9575	14.1721	0.0174	0.037
0.60000	0.24754	0.0197	110.8394	14.0730	0.0191	0.040
0.60500	0.24884	0.0211	100.0807	13.9844	0.0210	0.044
0.61000	0.25019	0.0229	141.1975	13.9071	0.0230	0.049
0.61500	0.25159	0.0246	110.9145	13.7500	0.0247	0.051
0.62000	0.25294	0.0264	125.0694	13.6440	0.0275	0.056
0.62500	0.25424	0.0283	117.9036	13.5344	0.0300	0.063
0.63000	0.25559	0.0303	99.7267	13.4314	0.0327	0.069
0.63500	0.25689	0.0323	87.2549	13.3254	0.0355	0.075
0.64000	0.25819	0.0344	75.0844	13.2215	0.0384	0.082
0.64500	0.25949	0.0369	63.0963	13.1190	0.0419	0.088
0.65000	0.26079	0.0391	52.0676	13.0181	0.0453	0.094
0.65500	0.26204	0.0414	41.8974	12.9184	0.0490	0.104
0.66000	0.26329	0.0442	31.4893	12.8209	0.0529	0.112
0.66500	0.26454	0.0469	24.2049	12.7245	0.0571	0.121
0.67000	0.26579	0.0494	19.7374	12.6294	0.0615	0.130
0.67500	0.26704	0.0524	15.0099	12.5360	0.0662	0.140
0.68000	0.26829	0.0554	11.7287	12.4434	0.0711	0.150
0.68500	0.26954	0.0584	8.6640	12.3530	0.0761	0.161
0.69000	0.27079	0.0614	6.7941	12.2634	0.0810	0.173
0.69500	0.27204	0.0651	4.6107	12.1753	0.0876	0.185
0.70000	0.27329	0.0684	3.4904	12.0883	0.0937	0.198
0.70500	0.27454	0.0720	2.5944	12.0024	0.1001	0.211
0.71000	0.27579	0.0754	1.9745	11.9181	0.1069	0.226
0.71500	0.27704	0.0794	1.4801	11.8347	0.1140	0.241
0.72000	0.27829	0.0832	1.1140	11.7525	0.1214	0.256
0.72500	0.27954	0.0877	0.7584	11.6715	0.1292	0.271
0.73000	0.28079	0.0919	0.5471	11.5914	0.1373	0.289
0.73500	0.28204	0.0954	0.4745	11.5127	0.1459	0.308
0.74000	0.28329	0.0997	0.3714	11.4349	0.1548	0.327
0.74500	0.28454	0.1041	0.2544	11.3582	0.1641	0.347
0.75000	0.28579	0.1086	0.1340	11.2825	0.1738	0.367
0.75500	0.28704	0.1130	0.0000	11.2081	0.1845	0.411
0.76000	0.28829	0.1176	0.0000	10.9894	0.2149	0.454
0.76500	0.28954	0.1227	0.0000	10.8456	0.2417	0.509
0.77000	0.29079	0.1283	0.0000	10.7111	0.2673	0.565
0.77500	0.29204	0.1342	0.0000	10.5775	0.2934	0.624
0.78000	0.29329	0.1405	0.0000	10.4449	0.3205	0.687
0.78500	0.29454	0.1471	0.0000	10.3134	0.3478	0.754
0.79000	0.29579	0.1541	0.0000	10.1831	0.3921	0.828
0.79500	0.29704	0.1614	0.0000	10.0740	0.4287	0.905
0.80000	0.29829	0.1690	0.0000	9.9555	0.4676	0.980
0.80500	0.29954	0.1769	0.0000	9.8394	0.5084	1.075
0.81000	0.30079	0.1851	0.0000	9.7267	0.5524	1.167
0.81500	0.30204	0.1934	0.0000	9.6161	0.5984	1.264
0.82000	0.30329	0.2020	0.0000	9.5084	0.6470	1.364
0.82500	0.30454	0.2109	0.0000	9.4027	0.6980	1.474
0.83000	0.30579	0.2201	0.0000	9.2994	0.7516	1.587
0.83500	0.30704	0.2294	0.0000	9.1984	0.8074	1.704
0.84000	0.30829	0.2389	0.0000	9.0997	0.8644	1.830
0.84500	0.30954	0.2484	0.0000	9.0015	0.9240	1.960

0.95000	4.54727	0.3582	0.0000	4.6043	0.5822	2.805
0.95500	4.61741	0.3729	0.0000	4.4154	1.0500	2.238
0.96000	4.68804	0.3874	0.0000	4.2249	1.1245	2.303
0.96500	4.75817	0.4027	0.0000	4.0340	1.2004	2.534
0.97000	4.82831	0.4177	0.0000	3.8449	1.2746	2.604
0.97500	4.89844	0.4324	0.0000	3.6514	1.3535	2.858
0.98000	4.96858	0.4474	0.0000	3.4599	1.4339	3.028
0.98500	5.03871	0.4626	0.0000	3.2697	1.5171	3.204
0.99000	5.10884	0.4775	0.0000	3.0794	1.6031	3.385
0.99500	5.17897	0.4924	0.0000	2.8894	1.6917	3.573
1.00000	5.24910	0.5071	0.0000	2.6994	1.7831	3.765
1.00500	5.31924	0.5220	0.0000	2.5094	1.8772	3.964
1.01000	5.38937	0.5367	0.0000	2.3194	1.9739	4.168
1.01500	5.45951	0.5512	0.0000	2.1294	2.0734	4.374
1.02000	5.52964	0.5654	0.0000	1.9394	2.1755	4.594
1.02500	5.59978	0.5799	0.0000	1.7494	2.2807	4.815
1.03000	5.66991	0.5940	0.0000	1.5594	2.3875	5.042
1.03500	5.74004	0.6080	0.0000	1.3694	2.4973	5.274
1.04000	5.81017	0.6218	0.0000	1.1794	2.6098	5.511
1.04500	5.88031	0.6354	0.0000	0.9894	2.7247	5.754
1.05000	5.95044	0.6489	0.0000	0.7994	2.8421	6.008
1.05500	6.02058	0.6621	0.0000	0.6094	2.9619	6.255
1.06000	6.09071	0.6751	0.0000	0.4194	3.0841	6.513
1.06500	6.16084	0.6879	0.0000	0.2294	3.2087	6.774
1.07000	6.23097	0.7005	0.0000	0.0394	3.3354	7.044
1.07500	6.30110	0.7128	0.0000	0.0000	3.4644	7.317
1.08000	6.37124	0.7249	0.0000	0.0000	3.5962	7.594
1.08500	6.44137	0.7368	0.0000	0.0000	3.7299	7.877
1.09000	6.51151	0.7484	0.0000	0.0000	3.8656	8.163
1.09500	6.58164	0.7599	0.0000	0.0000	4.0034	8.454
1.10000	6.65178	0.7709	0.0000	0.0000	4.1434	8.750
1.10500	6.72191	0.7817	0.0000	0.0000	4.2853	9.049
1.11000	6.79204	0.7922	0.0000	0.0000	4.4292	9.353
1.11500	6.86218	0.8025	0.0000	0.0000	4.5749	9.661
1.12000	6.93231	0.8125	0.0000	0.0000	4.7225	9.973
1.12500	7.00244	0.8223	0.0000	0.0000	4.8720	10.288
1.13000	7.07258	0.8318	0.0000	0.0000	5.0233	10.608
1.13500	7.14271	0.8410	0.0000	0.0000	5.1761	10.931
1.14000	7.21284	0.8500	0.0000	0.0000	5.3304	11.257
1.14500	7.28297	0.8595	0.0000	0.0000	5.4864	11.587
1.15000	7.35310	0.8689	0.0000	0.0000	5.6445	11.920
1.15500	7.42324	0.8774	0.0000	0.0000	5.8037	12.254
1.16000	7.49337	0.8857	0.0000	0.0000	5.9643	12.595
1.16500	7.56351	0.8939	0.0000	0.0000	6.1264	12.937
1.17000	7.63364	0.9020	0.0000	0.0000	6.2904	13.283
1.17500	7.70378	0.9101	0.0000	0.0000	6.4564	13.630
1.18000	7.77391	0.9177	0.0000	0.0000	6.6244	13.981
1.18500	7.84404	0.9253	0.0000	0.0000	6.7944	14.334
1.19000	7.91418	0.9328	0.0000	0.0000	6.9664	14.689
1.19500	7.98431	0.9400	0.0000	0.0000	7.1404	15.047
1.20000	8.05444	0.9471	0.0000	0.0000	7.3164	15.407
1.20500	8.12458	0.9541	0.0000	0.0000	7.4944	15.769
1.21000	8.19471	0.9610	0.0000	0.0000	7.6744	16.133
1.21500	8.26484	0.9679	0.0000	0.0000	7.8564	16.499
1.22000	8.33497	0.9747	0.0000	0.0000	8.0404	16.867



1.30000	17.48224	0.9596	0.0000	5.4613	8.1694	17.237
1.40000	18.10160	0.9402	0.0000	5.1154	9.8440	21.004
1.50000	18.28032	1.0000	0.0000	5.0120	11.7700	24.835
1.60000	18.15167	0.9930	0.0000	4.7441	13.5016	28.707
1.70000	17.74642	0.9730	0.0000	4.4060	15.3978	32.505
1.80000	17.26613	0.9434	0.0000	4.2933	17.1053	36.207
1.90000	16.56344	0.9072	0.0000	4.1024	18.4374	39.781
2.00000	15.64101	0.8644	0.0000	3.8307	20.4594	43.205
2.10000	15.05270	0.8234	0.0000	3.7743	22.0043	46.444
2.20000	14.24494	0.7742	0.0000	3.6526	23.4492	49.341
2.30000	13.43516	0.7340	0.0000	3.5334	24.8531	52.488
2.40000	12.63968	0.6914	0.0000	3.4552	26.1547	55.237
2.50000	11.84784	0.6492	0.0000	3.3747	27.3819	57.874
2.60000	11.17451	0.6067	0.0000	3.1764	28.5313	60.251
2.70000	10.41994	0.5700	0.0000	3.0448	29.6043	62.324
2.80000	9.75060	0.5334	0.0000	2.9993	30.6146	64.635
2.90000	9.11053	0.4980	0.0000	2.9201	31.5597	66.647
3.00000	8.52674	0.4644	0.0000	2.8464	32.4417	68.300
3.10000	7.97149	0.4316	0.0000	2.7780	33.2643	70.250
3.20000	7.45281	0.4077	0.0000	2.7141	34.0373	71.878
3.30000	6.96884	0.3812	0.0000	2.6542	34.7541	73.401
3.40000	6.51804	0.3544	0.0000	2.5982	35.4121	74.824
3.50000	6.09840	0.3336	0.0000	2.5455	36.0227	76.154
3.60000	5.70831	0.3123	0.0000	2.4940	36.5828	77.402
3.70000	5.34560	0.2924	0.0000	2.4434	37.1003	78.569
3.80000	5.00851	0.2740	0.0000	2.4055	37.5729	79.661
3.90000	4.69529	0.2568	0.0000	2.3640	38.0076	80.686
4.00000	4.40422	0.2409	0.0000	2.3247	38.4026	81.644
4.10000	4.13370	0.2261	0.0000	2.2876	38.7683	82.547
4.20000	3.88222	0.2124	0.0000	2.2521	39.1050	83.393
4.30000	3.64837	0.1994	0.0000	2.2184	39.4164	84.184
4.40000	3.43081	0.1877	0.0000	2.1870	40.2272	84.935
4.50000	3.22837	0.1764	0.0000	2.1548	40.5530	85.638
4.60000	3.03987	0.1663	0.0000	2.1279	40.8443	86.300
4.70000	2.86424	0.1547	0.0000	2.1004	41.1614	86.923
4.80000	2.70057	0.1477	0.0000	2.0742	41.4396	87.510
4.90000	2.54791	0.1394	0.0000	2.0491	41.7019	88.064
5.00000	2.40544	0.1316	0.0000	2.0251	41.9495	88.587
5.10000	2.27244	0.1243	0.0000	2.0022	42.1813	89.081
5.20000	2.14814	0.1175	0.0000	1.9802	42.4043	89.548
5.30000	2.03168	0.1117	0.0000	1.9791	42.6132	89.980
5.40000	1.92324	0.1052	0.0000	1.9349	42.8109	90.406
5.50000	1.82154	0.0984	0.0000	1.9195	42.9981	90.807
5.60000	1.72624	0.0944	0.0000	1.9004	43.1754	91.176
5.70000	1.63691	0.0895	0.0000	1.8829	43.3416	91.531
5.80000	1.55314	0.0850	0.0000	1.8656	43.5030	91.868
5.90000	1.47652	0.0807	0.0000	1.8490	43.6544	92.187
6.00000	1.40064	0.0764	0.0000	1.8336	43.7941	92.491
6.10000	1.33131	0.0728	0.0000	1.8174	43.9344	92.779
6.20000	1.26609	0.0693	0.0000	1.8027	44.0645	93.054
6.30000	1.20472	0.0659	0.0000	1.7883	44.1840	93.314
6.40000	1.14695	0.0627	0.0000	1.7744	44.3055	93.561
6.50000	1.09251	0.0598	0.0000	1.7610	44.4175	93.799
6.60000	1.04124	0.0570	0.0000	1.7480	44.5242	94.024
6.70000	0.99247	0.0543	0.0000	1.7354	44.6258	94.239

7.00000	0.94723	0.0514	0.0000	1.7233	44.7224	94.444
7.10000	0.90414	0.0485	0.0000	1.7114	44.8154	94.639
7.20000	0.86141	0.0452	0.0000	1.7002	44.9037	94.826
7.30000	0.82044	0.0421	0.0000	1.6891	44.9841	95.004
7.40000	0.78054	0.0431	0.0000	1.6784	45.0644	95.174
7.50000	0.74111	0.0413	0.0000	1.6680	45.1459	95.337
7.60000	0.70215	0.0395	0.0000	1.6579	45.2197	95.493
7.70000	0.66462	0.0378	0.0000	1.6481	45.2963	95.642
7.80000	0.62813	0.0362	0.0000	1.6384	45.3778	95.785
7.90000	0.59359	0.0347	0.0000	1.6294	45.4226	95.922
8.00000	0.56072	0.0332	0.0000	1.6204	45.4684	96.053
8.10000	0.52922	0.0319	0.0000	1.6117	45.5441	96.178
8.20000	0.49951	0.0306	0.0000	1.6032	45.6011	96.299
8.30000	0.47194	0.0293	0.0000	1.5949	45.6558	96.414
8.40000	0.44651	0.0281	0.0000	1.5864	45.7083	96.525
8.50000	0.42312	0.0270	0.0000	1.5780	45.7544	96.631
8.60000	0.40147	0.0260	0.0000	1.5714	45.8072	96.734
8.70000	0.38124	0.0250	0.0000	1.5636	45.8537	96.832
8.80000	0.36244	0.0240	0.0000	1.5567	45.8945	96.926
8.90000	0.34491	0.0231	0.0000	1.5494	45.9415	97.017
9.00000	0.32854	0.0222	0.0000	1.5427	45.9829	97.105
9.10000	0.31307	0.0214	0.0000	1.5360	46.0277	97.189
9.20000	0.29814	0.0206	0.0000	1.5294	46.0610	97.270
9.30000	0.28371	0.0194	0.0000	1.5230	46.0940	97.344
9.40000	0.26997	0.0191	0.0000	1.5167	46.1335	97.421
9.50000	0.25641	0.0184	0.0000	1.5104	46.1674	97.495
9.60000	0.24334	0.0177	0.0000	1.5044	46.2008	97.565
9.70000	0.23081	0.0171	0.0000	1.4984	46.2327	97.632
9.80000	0.21874	0.0165	0.0000	1.4931	46.2614	97.697
9.90000	0.20710	0.0159	0.0000	1.4875	46.2930	97.760
10.00000	0.19589	0.0154	0.0000	1.4821	46.3217	97.820
10.10000	0.27141	0.0144	0.0000	1.4767	46.3493	97.874
10.20000	0.26215	0.0143	0.0000	1.4714	46.3740	97.935
10.30000	0.25397	0.0139	0.0000	1.4664	46.4017	97.989
10.40000	0.24474	0.0134	0.0000	1.4614	46.4246	98.042
10.50000	0.23641	0.0129	0.0000	1.4565	46.4507	98.093
10.60000	0.22879	0.0125	0.0000	1.4517	46.4740	98.149
10.70000	0.22194	0.0121	0.0000	1.4470	46.4945	98.189
10.80000	0.21409	0.0117	0.0000	1.4424	46.5182	98.233
10.90000	0.20714	0.0113	0.0000	1.4379	46.5393	98.280
11.00000	0.20054	0.0110	0.0000	1.4334	46.5597	98.323
11.10000	0.19417	0.0106	0.0000	1.4291	46.5794	98.364
11.20000	0.18804	0.0103	0.0000	1.4249	46.5985	98.405
11.30000	0.18214	0.0100	0.0000	1.4207	46.6170	98.444
11.40000	0.17650	0.0097	0.0000	1.4164	46.6349	98.489
11.50000	0.17104	0.0094	0.0000	1.4126	46.6523	98.531
11.60000	0.16582	0.0091	0.0000	1.4087	46.6692	98.554
11.70000	0.16079	0.0088	0.0000	1.4048	46.6855	98.588
11.80000	0.15594	0.0085	0.0000	1.4010	46.7013	98.622
11.90000	0.15127	0.0083	0.0000	1.3973	46.7177	98.644
12.00000	0.14674	0.0080	0.0000	1.3937	46.7314	98.688

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 1476.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1750.0  
DEGREES FAHRENHEIT = 2600.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.29 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 24.01 LUMENS/CM<sup>2</sup>

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 7.93 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.005 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 100.050 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.440 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.6560 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.0860 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 53.10 WATT/CM<sup>2</sup> OR 5.317560E+00 FRG/SEC/CM<sup>2</sup> OR 1.270030E+07 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 21.13 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, 400 LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: W = M\*W<sub>0</sub>

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 1476.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1750.0  
DEGREES FAHRENHEIT = 2600.0

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR RATION	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00045	2.12780E-05	0.0000	23.4057	7.63400E-06	0.000
0.35500	0.00054	2.75030E-05	0.0000	23.1540	1.07050E-05	0.000
0.36000	0.00075	3.44490E-05	0.0000	22.8333	1.34220E-05	0.000
0.36500	0.00094	4.52880E-05	0.0000	22.5205	1.77720E-05	0.000
0.37000	0.00121	5.73590E-05	0.0000	22.2167	2.31740E-05	0.000
0.37500	0.00152	7.21780E-05	0.0000	21.9200	2.99980E-05	0.000
0.38000	0.00190	9.08740E-05	0.0000	21.6314	3.85300E-05	0.000
0.38500	0.00234	0.0001	0.0000	21.3504	4.91580E-05	0.000
0.39000	0.00291	0.0001	0.0000	21.0760	6.29990E-05	0.000
0.39500	0.00357	0.0002	0.0000	20.8101	7.94460E-05	0.000
0.40000	0.00434	0.0002	0.0012	20.5500	9.81700E-05	0.000
0.40500	0.00524	0.0002	0.0029	20.2963	0.0001	0.000
0.41000	0.00634	0.0003	0.0052	20.0484	0.0002	0.000
0.41500	0.00759	0.0004	0.0114	19.8072	0.0002	0.000
0.42000	0.00906	0.0004	0.0244	19.5714	0.0003	0.000
0.42500	0.01074	0.0005	0.0533	19.3417	0.0003	0.001
0.43000	0.01260	0.0006	0.1001	19.1163	0.0003	0.001
0.43500	0.01462	0.0007	0.1705	18.8966	0.0004	0.001
0.44000	0.01747	0.0008	0.2732	18.6818	0.0005	0.001
0.44500	0.02034	0.0010	0.4016	18.4719	0.0006	0.001
0.45000	0.02345	0.0011	0.6110	18.2667	0.0007	0.001
0.45500	0.02735	0.0013	0.8927	18.0659	0.0008	0.002
0.46000	0.03151	0.0015	1.2857	17.8694	0.0010	0.002
0.46500	0.03614	0.0017	1.8205	17.6774	0.0011	0.002
0.47000	0.04139	0.0020	2.5613	17.4894	0.0013	0.002
0.47500	0.04719	0.0022	3.5942	17.3053	0.0015	0.003
0.48000	0.05363	0.0025	5.0694	17.1250	0.0018	0.003
0.48500	0.06074	0.0029	6.9673	16.9485	0.0021	0.004
0.49000	0.06862	0.0032	9.7053	16.7754	0.0024	0.005
0.49500	0.07727	0.0037	13.3554	16.6061	0.0029	0.005
0.50000	0.08675	0.0041	19.0542	16.4400	0.0032	0.006
0.50500	0.09713	0.0046	26.8023	16.2772	0.0036	0.007
0.51000	0.10846	0.0051	37.0900	16.1174	0.0042	0.008
0.51500	0.12079	0.0057	49.9013	15.9612	0.0047	0.009
0.52000	0.13419	0.0064	64.7868	15.8077	0.0054	0.010
0.52500	0.14870	0.0070	80.1671	15.6571	0.0061	0.011
0.53000	0.16440	0.0078	96.3614	15.5094	0.0069	0.011
0.53500	0.18132	0.0086	112.8183	15.3644	0.0077	0.013
0.54000	0.19954	0.0094	129.4447	15.2229	0.0087	0.014
0.54500	0.21911	0.0104	146.0178	15.0824	0.0097	0.016
0.55000	0.24010	0.0114	162.4501	14.9435	0.0109	0.020
0.55500	0.26255	0.0124	178.5330	14.8100	0.0121	0.021
0.56000	0.28653	0.0136	193.8649	14.6784	0.0135	0.025
0.56500	0.31200	0.0148	207.7443	14.5487	0.0150	0.029
0.57000	0.33920	0.0161	219.6433	14.4211	0.0166	0.031

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0.05000	0.44000	0.10000	0.00000	0.45000	1.33100	2.50000
0.06000	0.47000	0.11000	0.00000	0.46000	1.41750	2.66667
0.07000	0.50000	0.12000	0.00000	0.47000	1.50000	2.80000
0.08000	0.52100	0.13000	0.00000	0.48000	1.58900	3.00000
0.09000	0.54260	0.14000	0.00000	0.49000	1.68500	3.16667
1.00000	1.07270	0.15000	0.00000	0.50000	1.78800	3.33333
1.01000	1.08460	0.16000	0.00000	0.51000	1.89800	3.50000
1.02000	1.09670	0.17000	0.00000	0.52000	2.01500	3.66667
1.03000	1.10900	0.18000	0.00000	0.53000	2.13900	3.83333
1.04000	1.12150	0.19000	0.00000	0.54000	2.27000	4.00000
1.05000	1.13420	0.20000	0.00000	0.55000	2.40800	4.16667
1.06000	1.14710	0.21000	0.00000	0.56000	2.55400	4.33333
1.07000	1.16020	0.22000	0.00000	0.57000	2.70800	4.50000
1.08000	1.17350	0.23000	0.00000	0.58000	2.87000	4.66667
1.09000	1.18700	0.24000	0.00000	0.59000	3.04000	4.83333
1.10000	1.20070	0.25000	0.00000	0.60000	3.21900	5.00000
1.11000	1.21460	0.26000	0.00000	0.61000	3.40600	5.16667
1.12000	1.22870	0.27000	0.00000	0.62000	3.60100	5.33333
1.13000	1.24300	0.28000	0.00000	0.63000	3.80400	5.50000
1.14000	1.25750	0.29000	0.00000	0.64000	4.01600	5.66667
1.15000	1.27220	0.30000	0.00000	0.65000	4.23700	5.83333
1.16000	1.28710	0.31000	0.00000	0.66000	4.46700	6.00000
1.17000	1.30220	0.32000	0.00000	0.67000	4.70600	6.16667
1.18000	1.31750	0.33000	0.00000	0.68000	4.95400	6.33333
1.19000	1.33300	0.34000	0.00000	0.69000	5.21100	6.50000
1.20000	1.34870	0.35000	0.00000	0.70000	5.47700	6.66667
1.21000	1.36460	0.36000	0.00000	0.71000	5.75200	6.83333
1.22000	1.38070	0.37000	0.00000	0.72000	6.03600	7.00000
1.23000	1.39700	0.38000	0.00000	0.73000	6.32900	7.16667
1.24000	1.41350	0.39000	0.00000	0.74000	6.63100	7.33333
1.25000	1.43020	0.40000	0.00000	0.75000	6.94200	7.50000
1.26000	1.44710	0.41000	0.00000	0.76000	7.26200	7.66667
1.27000	1.46420	0.42000	0.00000	0.77000	7.59100	7.83333
1.28000	1.48150	0.43000	0.00000	0.78000	7.92900	8.00000
1.29000	1.49900	0.44000	0.00000	0.79000	8.27600	8.16667
1.30000	1.51670	0.45000	0.00000	0.80000	8.63200	8.33333
1.31000	1.53460	0.46000	0.00000	0.81000	9.00000	8.50000
1.32000	1.55270	0.47000	0.00000	0.82000	9.37900	8.66667
1.33000	1.57100	0.48000	0.00000	0.83000	9.77000	8.83333
1.34000	1.58950	0.49000	0.00000	0.84000	10.17300	9.00000
1.35000	1.60820	0.50000	0.00000	0.85000	10.58800	9.16667
1.36000	1.62710	0.51000	0.00000	0.86000	11.01500	9.33333
1.37000	1.64620	0.52000	0.00000	0.87000	11.45400	9.50000
1.38000	1.66550	0.53000	0.00000	0.88000	11.90500	9.66667
1.39000	1.68500	0.54000	0.00000	0.89000	12.36900	9.83333
1.40000	1.70470	0.55000	0.00000	0.90000	12.84600	

1.50000	20.42311	0.9750	0.0000	9.4020	10.0020	10.0000
1.60000	21.07171	0.9472	0.0000	9.1674	12.1313	22.014
1.70000	21.09616	0.9043	0.0000	8.8700	14.2620	26.705
1.80000	20.78844	0.8830	0.0000	8.4144	16.3305	30.727
1.90000	20.23227	0.9574	0.0000	8.1941	18.3921	34.500
2.00000	19.40000	0.9227	0.0000	8.1780	20.3001	38.329
2.10000	18.44009	0.8825	0.0000	8.0940	22.2002	41.914
2.20000	17.72611	0.8358	0.0000	8.0276	24.1073	45.335
2.30000	16.76924	0.7934	0.0000	8.0770	25.9323	48.370
2.40000	15.40460	0.7470	0.0000	8.0002	27.4609	51.642
2.50000	14.05221	0.7024	0.0000	8.0154	28.9916	54.524
2.60000	13.02504	0.6500	0.0000	8.1014	30.4323	57.230
2.70000	13.03514	0.6169	0.0000	8.1967	31.7800	59.744
2.80000	12.14614	0.5747	0.0000	8.1003	33.0407	62.135
2.90000	11.30240	0.5386	0.0000	8.0114	34.2147	64.350
3.00000	10.62540	0.5024	0.0000	8.0201	35.3147	66.010
3.10000	9.91534	0.4692	0.0000	8.0524	36.3494	68.350
3.20000	9.25147	0.4374	0.0000	8.0819	37.3033	70.151
3.30000	8.63225	0.4085	0.0000	8.07159	38.1972	71.832
3.40000	8.05540	0.3812	0.0000	8.0542	39.0317	73.401
3.50000	7.51990	0.3559	0.0000	8.0904	39.8097	74.865
3.60000	7.02222	0.3323	0.0000	8.0425	40.5345	76.231
3.70000	6.56034	0.3105	0.0000	8.0010	41.2153	77.500
3.80000	6.13900	0.2902	0.0000	8.0441	41.8467	78.701
3.90000	5.73475	0.2714	0.0000	8.1902	42.4420	79.810
4.00000	5.34642	0.2540	0.0000	8.1569	42.9974	80.840
4.10000	5.02687	0.2374	0.0000	8.1169	43.5169	81.834
4.20000	4.70810	0.2224	0.0000	8.2791	44.0014	82.751
4.30000	4.41425	0.2089	0.0000	8.2433	44.4593	83.600
4.40000	4.14154	0.1960	0.0000	8.2093	44.8869	84.413
4.50000	3.88037	0.1840	0.0000	8.1771	45.2803	85.167
4.60000	3.65121	0.1729	0.0000	8.1464	45.6452	85.876
4.70000	3.43467	0.1625	0.0000	8.1173	46.0195	86.562
4.80000	3.23147	0.1529	0.0000	8.0895	46.3527	87.169
4.90000	3.04241	0.1440	0.0000	8.0630	46.6462	87.759
5.00000	2.86640	0.1354	0.0000	8.0377	46.9016	88.314
5.10000	2.70244	0.1279	0.0000	8.0135	47.2330	88.834
5.20000	2.54960	0.1207	0.0000	1.0904	47.5094	89.331
5.30000	2.40705	0.1139	0.0000	1.0683	47.7502	89.707
5.40000	2.27394	0.1074	0.0000	1.0471	47.9642	90.237
5.50000	2.14970	0.1017	0.0000	1.0268	48.2053	90.653
5.60000	2.03354	0.0964	0.0000	1.0073	48.4144	91.066
5.70000	1.92400	0.0911	0.0000	1.0084	48.6192	91.418
5.80000	1.82322	0.0863	0.0000	1.0707	48.7996	91.771
5.90000	1.72700	0.0814	0.0000	1.0534	48.9771	92.104
6.00000	1.63675	0.0775	0.0000	1.0367	49.1454	92.421
6.10000	1.55504	0.0734	0.0000	1.0207	49.3050	92.721
6.20000	1.47453	0.0699	0.0000	1.0053	49.4566	93.006
6.30000	1.40274	0.0664	0.0000	1.0904	49.6005	93.277
6.40000	1.33349	0.0631	0.0000	1.0760	49.7373	93.534
6.50000	1.26433	0.0600	0.0000	1.0622	49.8673	93.779
6.60000	1.20704	0.0571	0.0000	1.0488	49.9911	94.011
6.70000	1.14933	0.0544	0.0000	1.0358	50.1098	94.233
6.80000	1.09497	0.0518	0.0000	1.0231	50.2210	94.444
6.90000	1.04373	0.0494	0.0000	1.0119	50.3270	94.645

7.00000	0.99541	0.0471	0.0000	1.0005	50.4299	94.837
7.10000	0.94960	0.0449	0.0000	1.0002	50.5271	95.019
7.20000	0.90674	0.0429	0.0000	1.0772	50.6199	95.194
7.30000	0.86604	0.0410	0.0000	1.0565	50.7045	95.361
7.40000	0.82760	0.0392	0.0000	1.0562	50.7912	95.520
7.50000	0.79122	0.0374	0.0000	1.0462	50.8741	95.672
7.60000	0.75679	0.0358	0.0000	1.0364	50.9515	95.818
7.70000	0.72419	0.0343	0.0000	1.0270	51.0256	95.957
7.80000	0.69331	0.0328	0.0000	1.0178	51.0964	96.090
7.90000	0.66403	0.0314	0.0000	1.0089	51.1643	96.218
8.00000	0.63627	0.0301	0.0000	1.0002	51.2293	96.340
8.10000	0.60992	0.0289	0.0000	1.0918	51.2916	96.457
8.20000	0.58491	0.0277	0.0000	1.0834	51.3513	96.569
8.30000	0.56114	0.0266	0.0000	1.0756	51.4086	96.677
8.40000	0.53859	0.0255	0.0000	1.0678	51.4636	96.780
8.50000	0.51712	0.0245	0.0000	1.0603	51.5163	96.880
8.60000	0.49671	0.0235	0.0000	1.0529	51.5670	96.975
8.70000	0.47729	0.0224	0.0000	1.0457	51.6157	97.067
8.80000	0.45879	0.0217	0.0000	1.0387	51.6625	97.155
8.90000	0.44114	0.0209	0.0000	1.0319	51.7075	97.239
9.00000	0.42439	0.0201	0.0000	1.0252	51.7508	97.321
9.10000	0.40833	0.0193	0.0000	1.0187	51.7924	97.399
9.20000	0.39313	0.0186	0.0000	1.0124	51.8325	97.474
9.30000	0.37857	0.0179	0.0000	1.0062	51.8711	97.547
9.40000	0.36464	0.0173	0.0000	1.0002	51.9082	97.617
9.50000	0.35141	0.0166	0.0000	1.0943	51.9440	97.684
9.60000	0.33871	0.0160	0.0000	1.0885	51.9785	97.749
9.70000	0.32662	0.0155	0.0000	1.0829	52.0116	97.811
9.80000	0.31501	0.0149	0.0000	1.0773	52.0439	97.872
9.90000	0.30394	0.0144	0.0000	1.0719	52.0748	97.930
10.00000	0.29334	0.0139	0.0000	1.0667	52.1047	97.986
10.10000	0.28322	0.0134	0.0000	1.0615	52.1335	98.040
10.20000	0.27351	0.0129	0.0000	1.0565	52.1613	98.093
10.30000	0.26421	0.0125	0.0000	1.0515	52.1882	98.143
10.40000	0.25530	0.0121	0.0000	1.0467	52.2142	98.190
10.50000	0.24674	0.0117	0.0000	1.0420	52.2393	98.239
10.60000	0.23857	0.0113	0.0000	1.0374	52.2635	98.285
10.70000	0.23072	0.0109	0.0000	1.0329	52.2870	98.329
10.80000	0.22318	0.0106	0.0000	1.0284	52.3097	98.372
10.90000	0.21595	0.0102	0.0000	1.0240	52.3317	98.413
11.00000	0.20901	0.0099	0.0000	1.0197	52.3529	98.451
11.10000	0.20234	0.0096	0.0000	1.0156	52.3735	98.487
11.20000	0.19591	0.0093	0.0000	1.0115	52.3934	98.520
11.30000	0.18974	0.0090	0.0000	1.0074	52.4127	98.554
11.40000	0.18384	0.0087	0.0000	1.0035	52.4313	98.586
11.50000	0.17819	0.0084	0.0000	1.0096	52.4494	98.616
11.60000	0.17270	0.0082	0.0000	1.0054	52.4670	98.647
11.70000	0.16744	0.0079	0.0000	1.0021	52.4840	98.679
11.80000	0.16237	0.0077	0.0000	1.0084	52.5005	98.730
11.90000	0.15750	0.0075	0.0000	1.0044	52.5165	98.780
12.00000	0.15280	0.0072	0.0000	1.0013	52.5320	98.790

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1428.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1800.0  
DEGREES FAHRENHEIT = 2780.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.35 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 16.82 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 11.72 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.008.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 105.187 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.419 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.4100 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 2.3249 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 59.52 WATT/CM<sup>2</sup> OR 5.951280000 ENG/SEC/CM<sup>2</sup> OR 1.422520000 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 24.33 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA:  $W = R * N * \Delta T$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1424.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1800.0  
DEGREES FAHRENHEIT = 2780.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT = FOR K=1800	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00084	3.44499E-05	0.0000	22.4333	1.51360E-05	0.000
0.35500	0.00111	4.55999E-05	0.0000	22.5117	2.00460E-05	0.000
0.36000	0.00141	5.81260E-05	0.0000	22.5991	2.61260E-05	0.000
0.36500	0.00174	7.35340E-05	0.0000	21.6950	3.43060E-05	0.000
0.37000	0.00225	9.23510E-05	0.0000	21.5901	4.43590E-05	0.000
0.37500	0.00280	0.0001	0.0000	21.5111	5.69300E-05	0.000
0.38000	0.00347	0.0001	0.0000	21.4407	7.25730E-05	0.000
0.38500	0.00427	0.0002	0.0000	20.7576	9.14770E-05	0.000
0.39000	0.00521	0.0002	0.0000	20.4815	0.0001	0.000
0.39500	0.00636	0.0003	0.0000	20.2321	0.0001	0.000
0.40000	0.00769	0.0003	0.0021	19.9742	0.0002	0.000
0.40500	0.00925	0.0004	0.0050	19.7325	0.0002	0.000
0.41000	0.01104	0.0005	0.0090	19.4919	0.0003	0.000
0.41500	0.01317	0.0005	0.0197	19.2570	0.0003	0.001
0.42000	0.01564	0.0006	0.0424	19.0274	0.0004	0.001
0.42500	0.01839	0.0008	0.0913	18.8039	0.0005	0.001
0.43000	0.02154	0.0009	0.1702	18.5853	0.0006	0.001
0.43500	0.02522	0.0010	0.2891	18.3716	0.0007	0.001
0.44000	0.02935	0.0012	0.4591	18.1629	0.0008	0.001
0.44500	0.03402	0.0014	0.6709	17.9588	0.0010	0.002
0.45000	0.03924	0.0014	1.0149	17.7593	0.0012	0.002
0.45500	0.04517	0.0019	1.4744	17.5641	0.0014	0.002
0.46000	0.05177	0.0021	2.1121	17.3732	0.0016	0.003
0.46500	0.05912	0.0024	2.9748	17.1864	0.0019	0.003
0.47000	0.06724	0.0028	4.1634	17.0035	0.0022	0.004
0.47500	0.07632	0.0031	5.8127	16.8244	0.0026	0.004
0.48000	0.08640	0.0034	8.1571	16.6493	0.0030	0.005
0.48500	0.09779	0.0040	11.1804	16.4777	0.0035	0.006
0.49000	0.10935	0.0045	15.4443	16.3095	0.0040	0.007
0.49500	0.12225	0.0050	21.5002	16.1444	0.0045	0.008
0.50000	0.13664	0.0056	30.0828	15.9833	0.0052	0.009
0.50500	0.15264	0.0063	42.2503	15.8251	0.0059	0.010
0.51000	0.16971	0.0070	58.0483	15.6699	0.0067	0.011
0.51500	0.18819	0.0077	77.0057	15.5174	0.0076	0.013
0.52000	0.20817	0.0084	100.5047	15.3684	0.0084	0.014
0.52500	0.22972	0.0094	123.8761	15.2222	0.0097	0.016
0.53000	0.25292	0.0104	148.2541	15.0784	0.0109	0.018
0.53500	0.27784	0.0114	172.8751	14.9377	0.0122	0.021
0.54000	0.30444	0.0125	197.5732	14.7994	0.0137	0.023
0.54500	0.33174	0.0137	222.0026	14.6636	0.0153	0.026
0.55000	0.36064	0.0147	246.0070	14.5303	0.0170	0.029
0.55500	0.39117	0.0161	269.1990	14.3994	0.0189	0.032
0.56000	0.42377	0.0177	291.4591	14.2709	0.0210	0.035
0.56500	0.46751	0.0192	311.7307	14.1444	0.0232	0.039
0.57000	0.50664	0.0208	327.8610	14.0205	0.0257	0.043

0.57500	0.54768	0.0225	140.7445	11.4944	0.0243	0.048
0.58000	0.55124	0.0243	140.7445	11.7747	0.0312	0.052
0.58500	0.55480	0.0261	141.0961	11.8610	0.0342	0.057
0.59000	0.55836	0.0279	141.4475	11.9473	0.0374	0.061
0.59500	0.56192	0.0303	141.8011	12.0336	0.0411	0.066
0.60000	0.56548	0.0325	142.1547	12.1199	0.0449	0.071
0.60500	0.56904	0.0348	142.5083	12.2062	0.0490	0.077
0.61000	0.57260	0.0372	142.8619	12.2925	0.0534	0.082
0.61500	0.57616	0.0397	143.2155	12.3788	0.0580	0.088
0.62000	0.57972	0.0424	143.5691	12.4651	0.0630	0.094
0.62500	0.58328	0.0451	143.9227	12.5514	0.0683	0.101
0.63000	0.58684	0.0479	144.2763	12.6377	0.0740	0.107
0.63500	0.59040	0.0508	144.6299	12.7240	0.0800	0.114
0.64000	0.59396	0.0538	144.9835	12.8103	0.0864	0.121
0.64500	0.59752	0.0568	145.3371	12.8966	0.0932	0.128
0.65000	0.60108	0.0599	145.6907	12.9829	0.1005	0.135
0.65500	0.60464	0.0631	146.0443	13.0692	0.1081	0.142
0.66000	0.60820	0.0664	146.3979	13.1555	0.1160	0.150
0.66500	0.61176	0.0698	146.7515	13.2418	0.1242	0.157
0.67000	0.61532	0.0733	147.1051	13.3281	0.1327	0.165
0.67500	0.61888	0.0769	147.4587	13.4144	0.1415	0.173
0.68000	0.62244	0.0806	147.8123	13.5007	0.1506	0.181
0.68500	0.62600	0.0844	148.1659	13.5870	0.1600	0.189
0.69000	0.62956	0.0883	148.5195	13.6733	0.1700	0.197
0.69500	0.63312	0.0923	148.8731	13.7596	0.1803	0.205
0.70000	0.63668	0.0964	149.2267	13.8459	0.1910	0.213
0.70500	0.64024	0.1006	149.5803	13.9322	0.2020	0.221
0.71000	0.64380	0.1049	150.0000	14.0185	0.2134	0.229
0.71500	0.64736	0.1093	150.4197	14.1048	0.2251	0.237
0.72000	0.65092	0.1138	150.8394	14.1911	0.2371	0.245
0.72500	0.65448	0.1184	151.2591	14.2774	0.2494	0.253
0.73000	0.65804	0.1231	151.6788	14.3637	0.2620	0.261
0.73500	0.66160	0.1279	152.0985	14.4500	0.2749	0.269
0.74000	0.66516	0.1328	152.5182	14.5363	0.2881	0.277
0.74500	0.66872	0.1378	152.9379	14.6226	0.3016	0.285
0.75000	0.67228	0.1429	153.3576	14.7089	0.3154	0.293
0.75500	0.67584	0.1481	153.7773	14.7952	0.3294	0.301
0.76000	0.67940	0.1534	154.1970	14.8815	0.3437	0.309
0.76500	0.68296	0.1588	154.6167	14.9678	0.3583	0.317
0.77000	0.68652	0.1643	155.0364	15.0541	0.3731	0.325
0.77500	0.69008	0.1699	155.4561	15.1404	0.3881	0.333
0.78000	0.69364	0.1756	155.8758	15.2267	0.4033	0.341
0.78500	0.69720	0.1814	156.2955	15.3130	0.4187	0.349
0.79000	0.70076	0.1873	156.7152	15.3993	0.4343	0.357
0.79500	0.70432	0.1933	157.1349	15.4856	0.4501	0.365
0.80000	0.70788	0.1994	157.5546	15.5719	0.4661	0.373
0.80500	0.71144	0.2056	157.9743	15.6582	0.4823	0.381
0.81000	0.71500	0.2119	158.3940	15.7445	0.4987	0.389
0.81500	0.71856	0.2183	158.8137	15.8308	0.5153	0.397
0.82000	0.72212	0.2248	159.2334	15.9171	0.5321	0.405
0.82500	0.72568	0.2314	159.6531	16.0034	0.5491	0.413
0.83000	0.72924	0.2381	160.0728	16.0897	0.5663	0.421
0.83500	0.73280	0.2449	160.4925	16.1760	0.5837	0.429
0.84000	0.73636	0.2518	160.9122	16.2623	0.6013	0.437
0.84500	0.73992	0.2588	161.3319	16.3486	0.6191	0.445
0.85000	0.74348	0.2659	161.7516	16.4349	0.6371	0.453
0.85500	0.74704	0.2731	162.1713	16.5212	0.6553	0.461
0.86000	0.75060	0.2804	162.5910	16.6075	0.6737	0.469
0.86500	0.75416	0.2878	163.0107	16.6938	0.6923	0.477
0.87000	0.75772	0.2953	163.4304	16.7801	0.7111	0.485
0.87500	0.76128	0.3029	163.8501	16.8664	0.7301	0.493
0.88000	0.76484	0.3106	164.2698	16.9527	0.7493	0.501
0.88500	0.76840	0.3184	164.6895	17.0390	0.7687	0.509
0.89000	0.77196	0.3263	165.1092	17.1253	0.7883	0.517
0.89500	0.77552	0.3343	165.5289	17.2116	0.8081	0.525
0.90000	0.77908	0.3424	165.9486	17.2979	0.8281	0.533
0.90500	0.78264	0.3506	166.3683	17.3842	0.8483	0.541
0.91000	0.78620	0.3589	166.7880	17.4705	0.8687	0.549
0.91500	0.78976	0.3673	167.2077	17.5568	0.8893	0.557
0.92000	0.79332	0.3758	167.6274	17.6431	0.9101	0.565
0.92500	0.79688	0.3844	168.0471	17.7294	0.9311	0.573
0.93000	0.80044	0.3931	168.4668	17.8157	0.9523	0.581
0.93500	0.80400	0.4019	168.8865	17.9020	0.9737	0.589
0.94000	0.80756	0.4108	169.3062	17.9883	0.9953	0.597
0.94500	0.81112	0.4198	169.7259	18.0746	1.0171	0.605
0.95000	0.81468	0.4289	170.1456	18.1609	1.0391	0.613
0.95500	0.81824	0.4381	170.5653	18.2472	1.0613	0.621
0.96000	0.82180	0.4474	170.9850	18.3335	1.0837	0.629
0.96500	0.82536	0.4568	171.4047	18.4198	1.1063	0.637
0.97000	0.82892	0.4663	171.8244	18.5061	1.1291	0.645
0.97500	0.83248	0.4759	172.2441	18.5924	1.1521	0.653
0.98000	0.83604	0.4856	172.6638	18.6787	1.1753	0.661
0.98500	0.83960	0.4954	173.0835	18.7650	1.1987	0.669
0.99000	0.84316	0.5053	173.5032	18.8513	1.2223	0.677
0.99500	0.84672	0.5153	173.9229	18.9376	1.2461	0.685

0.99000	11.49877	0.4888	0.0000	11.1571	2.0000	3.528
0.99500	12.27704	0.5046	0.0000	11.0749	2.2266	3.731
1.00000	12.65724	0.5203	0.0000	10.9944	2.4643	3.940
1.01000	13.03891	0.5358	0.0000	10.9154	2.7118	4.156
1.02000	13.42096	0.5512	0.0000	10.8381	2.9690	4.378
1.03000	13.80381	0.5664	0.0000	10.7622	3.2349	4.607
1.04000	14.18666	0.5816	0.0000	10.6878	3.5086	4.842
1.05000	14.56951	0.5965	0.0000	10.6149	3.7899	5.082
1.06000	14.95236	0.6111	0.0000	10.5433	4.0689	5.329
1.07000	15.33521	0.6255	0.0000	10.4731	4.3456	5.582
1.08000	15.71806	0.6400	0.0000	10.4042	4.6201	5.841
1.09000	16.10091	0.6544	0.0000	10.3366	4.8924	6.105
1.10000	16.48376	0.6684	0.0000	10.2702	5.1627	6.374
1.11000	16.86661	0.6821	0.0000	10.2051	5.4309	6.647
1.12000	17.24946	0.6954	0.0000	10.1411	5.6970	6.923
1.13000	17.63231	0.7085	0.0000	10.0783	5.9612	7.200
1.14000	18.01516	0.7214	0.0000	10.0166	6.2235	7.478
1.15000	18.39801	0.7340	0.0000	9.9560	6.4840	7.756
1.16000	18.78086	0.7464	0.0000	9.8964	6.7427	8.034
1.17000	19.16371	0.7584	0.0000	9.8378	7.0000	8.312
1.18000	19.54656	0.7702	0.0000	9.7802	7.2559	8.590
1.19000	19.92941	0.7817	0.0000	9.7236	7.5100	8.868
1.20000	20.31226	0.7929	0.0000	9.6679	7.7623	9.146
1.21000	20.69511	0.8037	0.0000	9.6131	8.0127	9.424
1.22000	21.07796	0.8143	0.0000	9.5591	8.2612	9.702
1.23000	21.46081	0.8245	0.0000	9.5059	8.5077	9.980
1.24000	21.84366	0.8345	0.0000	9.4534	8.7522	10.258
1.25000	22.22651	0.8441	0.0000	9.4016	8.9947	10.536
1.26000	22.60936	0.8535	0.0000	9.3505	9.2352	10.814
1.27000	22.99221	0.8625	0.0000	9.3000	9.4737	11.092
1.28000	23.37506	0.8712	0.0000	9.2500	9.7100	11.370
1.29000	23.75791	0.8796	0.0000	9.2005	9.9443	11.648
1.30000	24.14076	0.8876	0.0000	9.1516	10.1766	11.926
1.31000	24.52361	0.8954	0.0000	9.1031	10.4069	12.204
1.32000	24.90646	0.9029	0.0000	9.0551	10.6352	12.482
1.33000	25.28931	0.9100	0.0000	9.0076	10.8615	12.760
1.34000	25.67216	0.9169	0.0000	8.9605	11.0858	13.038
1.35000	26.05501	0.9234	0.0000	8.9139	11.3081	13.316
1.36000	26.43786	0.9297	0.0000	8.8678	11.5284	13.594
1.37000	26.82071	0.9356	0.0000	8.8221	11.7467	13.872
1.38000	27.20356	0.9413	0.0000	8.7768	11.9630	14.150
1.39000	27.58641	0.9467	0.0000	8.7319	12.1773	14.428
1.40000	27.96926	0.9518	0.0000	8.6874	12.3896	14.706
1.41000	28.35211	0.9566	0.0000	8.6433	12.5999	14.984
1.42000	28.73496	0.9611	0.0000	8.5995	12.8082	15.262
1.43000	29.11781	0.9653	0.0000	8.5560	13.0145	15.540
1.44000	29.50066	0.9693	0.0000	8.5128	13.2188	15.818
1.45000	29.88351	0.9730	0.0000	8.4700	13.4211	16.096
1.46000	30.26636	0.9765	0.0000	8.4275	13.6214	16.374
1.47000	30.64921	0.9797	0.0000	8.3853	13.8187	16.652
1.48000	31.03206	0.9826	0.0000	8.3434	14.0140	16.930
1.49000	31.41491	0.9853	0.0000	8.3018	14.2073	17.208

1.50000	24.03048	0.9878	0.0000	5.1534	12.2361	20.550
1.60000	24.32601	0.9899	0.0000	5.1728	12.4583	20.628
1.70000	24.55680	0.9910	0.0000	4.7441	17.0850	28.707
1.80000	25.43385	0.9715	0.0000	4.4928	19.4779	32.726
1.90000	22.45481	0.9398	0.0000	4.2688	21.4041	36.634
2.00000	21.90187	0.9003	0.0000	4.0707	24.0411	40.306
2.10000	20.93877	0.8566	0.0000	1.4921	26.1808	43.988
2.20000	19.71739	0.8105	0.0000	1.7111	28.2088	47.395
2.30000	18.57542	0.7635	0.0000	1.9857	10.1216	50.612
2.40000	17.46075	0.7160	0.0000	1.4514	11.9242	53.630
2.50000	16.33316	0.6714	0.0000	3.3330	33.6124	56.475
2.60000	15.26618	0.6275	0.0000	1.2728	15.1922	59.128
2.70000	14.26835	0.5857	0.0000	1.1217	36.6675	61.607
2.80000	13.24844	0.5461	0.0000	3.0784	36.0437	63.919
2.90000	12.37812	0.5088	0.0000	2.9424	39.3248	66.074
3.00000	11.52862	0.4739	0.0000	2.8834	40.5712	68.067
3.10000	10.73553	0.4411	0.0000	2.7888	41.6340	69.952
3.20000	9.99708	0.4109	0.0000	2.7214	42.6702	71.693
3.30000	9.31093	0.3827	0.0000	2.4574	43.4381	73.314
3.40000	8.67436	0.3564	0.0000	2.4982	44.5340	74.828
3.50000	8.08834	0.3323	0.0000	2.4425	45.1716	76.231
3.60000	7.53807	0.3109	0.0000	2.4004	46.1523	77.581
3.70000	7.03241	0.2901	0.0000	2.4414	46.8885	78.767
3.80000	6.56456	0.2698	0.0000	2.1954	47.5601	79.908
3.90000	6.13167	0.2520	0.0000	2.1522	48.1944	80.675
4.00000	5.73112	0.2356	0.0000	2.1114	48.7875	81.071
4.10000	5.36483	0.2203	0.0000	2.2728	49.1418	82.902
4.20000	5.01724	0.2042	0.0000	2.2141	49.8605	83.771
4.30000	4.69984	0.1932	0.0000	2.2018	50.1441	84.589
4.40000	4.40484	0.1811	0.0000	2.1808	50.8012	85.354
4.50000	4.13202	0.1698	0.0000	2.1170	51.2278	86.071
4.60000	3.87883	0.1594	0.0000	2.1084	51.4242	86.748
4.70000	3.64385	0.1498	0.0000	2.0402	52.0042	87.375
4.80000	3.42544	0.1408	0.0000	2.0535	52.1576	87.969
4.90000	3.22284	0.1325	0.0000	2.0279	52.6899	88.527
5.00000	3.03629	0.1247	0.0000	2.0035	53.0076	89.053
5.10000	2.85881	0.1175	0.0000	1.9802	53.2972	89.544
5.20000	2.69441	0.1104	0.0000	1.9570	53.4748	90.014
5.30000	2.54314	0.1045	0.0000	1.9346	53.8166	90.456
5.40000	2.40114	0.0987	0.0000	1.9114	54.0437	90.869
5.50000	2.26864	0.0933	0.0000	1.8964	54.3172	91.261
5.60000	2.14400	0.0882	0.0000	1.8774	54.5378	91.632
5.70000	2.02925	0.0834	0.0000	1.8597	54.7464	91.983
5.80000	1.92111	0.0780	0.0000	1.8424	54.9439	92.314
5.90000	1.81900	0.0744	0.0000	1.8257	55.1309	92.628
6.00000	1.72511	0.0709	0.0000	1.8094	55.3081	92.926
6.10000	1.63679	0.0673	0.0000	1.7942	55.4741	93.209
6.20000	1.55299	0.0638	0.0000	1.7791	55.6355	93.474
6.30000	1.47481	0.0604	0.0000	1.7640	55.7888	93.731
6.40000	1.40140	0.0574	0.0000	1.7510	55.9306	93.972
6.50000	1.33282	0.0548	0.0000	1.7376	56.0673	94.202
6.60000	1.26756	0.0521	0.0000	1.7247	56.1972	94.428
6.70000	1.20652	0.0494	0.0000	1.7122	56.3209	94.628
6.80000	1.14904	0.0472	0.0000	1.7002	56.4387	94.826
6.90000	1.09493	0.0450	0.0000	1.6885	56.5508	95.014

7.00000	1.04349	0.0429	0.0000	1.6772	56.6577	95.198
7.10000	0.99575	0.0409	0.0000	1.6662	56.7597	95.365
7.20000	0.95032	0.0391	0.0000	1.6554	56.8570	95.520
7.30000	0.90741	0.0373	0.0000	1.6453	56.9499	95.665
7.40000	0.86687	0.0356	0.0000	1.6351	57.0386	95.804
7.50000	0.82853	0.0341	0.0000	1.6257	57.1233	95.974
7.60000	0.79227	0.0326	0.0000	1.6161	57.2043	96.112
7.70000	0.75794	0.0312	0.0000	1.6071	57.2818	96.262
7.80000	0.72443	0.0298	0.0000	1.5981	57.3560	96.367
7.90000	0.69263	0.0286	0.0000	1.5897	57.4270	96.484
8.00000	0.66254	0.0274	0.0000	1.5813	57.4950	96.601
8.10000	0.63373	0.0262	0.0000	1.5731	57.5601	96.710
8.20000	0.60514	0.0251	0.0000	1.5652	57.6225	96.815
8.30000	0.57684	0.0241	0.0000	1.5575	57.6824	96.916
8.40000	0.54874	0.0231	0.0000	1.5500	57.7399	97.012
8.50000	0.52093	0.0222	0.0000	1.5427	57.7950	97.105
8.60000	0.49341	0.0213	0.0000	1.5354	57.8480	97.198
8.70000	0.46611	0.0205	0.0000	1.5284	57.8998	97.279
8.80000	0.43900	0.0197	0.0000	1.5210	57.9477	97.361
8.90000	0.41209	0.0189	0.0000	1.5153	57.9987	97.440
9.00000	0.38542	0.0182	0.0000	1.5094	58.0394	97.514
9.10000	0.35914	0.0175	0.0000	1.5024	58.0811	97.588
9.20000	0.33319	0.0168	0.0000	1.4964	58.1251	97.659
9.30000	0.30750	0.0162	0.0000	1.4905	58.1643	97.727
9.40000	0.28213	0.0156	0.0000	1.4844	58.2041	97.792
9.50000	0.25694	0.0151	0.0000	1.4789	58.2414	97.854
9.60000	0.23194	0.0145	0.0000	1.4733	58.2774	97.915
9.70000	0.20714	0.0140	0.0000	1.4679	58.3121	97.971
9.80000	0.18254	0.0135	0.0000	1.4626	58.3455	98.030
9.90000	0.15814	0.0130	0.0000	1.4571	58.3777	98.084
10.00000	0.13397	0.0126	0.0000	1.4522	58.4089	98.136
10.10000	0.20904	0.0121	0.0000	1.4473	58.4389	98.187
10.20000	0.28491	0.0117	0.0000	1.4424	58.4679	98.235
10.30000	0.27518	0.0113	0.0000	1.4374	58.4959	98.287
10.40000	0.26587	0.0109	0.0000	1.4329	58.5229	98.328
10.50000	0.25694	0.0106	0.0000	1.4284	58.5491	98.372
10.60000	0.24838	0.0102	0.0000	1.4239	58.5743	98.414
10.70000	0.24017	0.0099	0.0000	1.4195	58.5988	98.454
10.80000	0.23230	0.0095	0.0000	1.4152	58.6224	98.495
10.90000	0.22473	0.0092	0.0000	1.4110	58.6442	98.533
11.00000	0.21750	0.0089	0.0000	1.4069	58.6673	98.570
11.10000	0.21051	0.0087	0.0000	1.4024	58.6887	98.604
11.20000	0.20384	0.0084	0.0000	1.3988	58.7095	98.641
11.30000	0.19742	0.0081	0.0000	1.3950	58.7295	98.675
11.40000	0.19124	0.0079	0.0000	1.3911	58.7490	98.707
11.50000	0.18531	0.0076	0.0000	1.3874	58.7678	98.739
11.60000	0.17960	0.0074	0.0000	1.3837	58.7860	98.770
11.70000	0.17411	0.0072	0.0000	1.3801	58.8037	98.799
11.80000	0.16882	0.0069	0.0000	1.3766	58.8209	98.828
11.90000	0.16374	0.0067	0.0000	1.3731	58.8375	98.856
12.00000	0.15884	0.0065	0.0000	1.3697	58.8536	98.883

VISIBILITY AND OTHER DATA FOR PLASMA RADIATION, MECHANICS DIVISION, U.S. AIR FORCE, UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 1570.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1850.0  
DEGREES FAHRENHEIT = 2870.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.40 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 93.37 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 16.97 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.007 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 110.100 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.003 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.5005 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.9701 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 66.41 WATT/CM<sup>2</sup> OR 4.00121E+04 FNG/SEC/CM<sup>2</sup> OR 1.50729E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 27.00 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta E/E = M \Delta T/T$

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 1570.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1850.0  
DEGREES FAHRENHEIT = 2870.0

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR RATION	POWER FROM ZERO TO L	8 TOTAL POWER ZERO TO L
0.35000	0.00180	5.7350E-05	0.0000	22.2162	2.0003E-05	0.0000
0.35500	0.00204	7.3063E-05	0.0000	21.0031	1.0000E-05	0.0000
0.36000	0.00254	9.2151E-05	0.0000	21.4091	4.0000E-05	0.0000
0.36500	0.00323	0.0001	0.0000	21.3032	6.3070E-05	0.0000
0.37000	0.00401	0.0001	0.0000	21.0151	4.2063E-05	0.0000
0.37500	0.00494	0.0002	0.0000	20.7351	0.0001	0.0000
0.38000	0.00611	0.0002	0.0000	20.4621	0.0001	0.0000
0.38500	0.00749	0.0003	0.0000	20.1964	0.0002	0.0000
0.39000	0.00910	0.0003	0.0000	19.9376	0.0002	0.0000
0.39500	0.01094	0.0004	0.0000	19.6851	0.0003	0.0000
0.40000	0.01319	0.0005	0.0000	19.4392	0.0003	0.0000
0.40500	0.01576	0.0006	0.0000	19.1922	0.0004	0.0001
0.41000	0.01871	0.0007	0.0153	18.9451	0.0005	0.0001
0.41500	0.02214	0.0008	0.0331	18.7364	0.0006	0.0001
0.42000	0.02608	0.0009	0.0709	18.5135	0.0007	0.0001
0.42500	0.03057	0.0011	0.1517	18.2957	0.0008	0.0001
0.43000	0.03567	0.0013	0.2813	18.0830	0.0010	0.0002
0.43500	0.04144	0.0015	0.4734	17.8751	0.0012	0.0002
0.44000	0.04795	0.0017	0.7500	17.6720	0.0014	0.0002
0.44500	0.05527	0.0020	1.0900	17.4734	0.0017	0.0003
0.45000	0.06347	0.0023	1.6401	17.2793	0.0020	0.0003
0.45500	0.07269	0.0026	2.3702	17.0894	0.0023	0.0003
0.46000	0.08279	0.0030	3.3779	16.9036	0.0027	0.0004
0.46500	0.09407	0.0034	4.7335	16.7219	0.0031	0.0005
0.47000	0.10651	0.0038	6.5921	16.5470	0.0036	0.0005
0.47500	0.12024	0.0043	9.1592	16.3808	0.0042	0.0006
0.48000	0.13535	0.0049	12.7929	16.2191	0.0049	0.0007
0.48500	0.15187	0.0056	17.4529	16.0623	0.0056	0.0008
0.49000	0.16992	0.0061	24.0337	15.9107	0.0064	0.0010
0.49500	0.18969	0.0068	33.2618	15.7604	0.0073	0.0011
0.50000	0.21097	0.0076	46.3367	15.6214	0.0083	0.0012
0.50500	0.23414	0.0084	64.0008	15.4974	0.0094	0.0014
0.51000	0.25920	0.0093	88.4981	15.3864	0.0104	0.0016
0.51500	0.28625	0.0103	118.3463	15.2884	0.0120	0.0018
0.52000	0.31536	0.0113	152.2574	15.2032	0.0135	0.0020
0.52500	0.34644	0.0124	190.0227	15.1304	0.0151	0.0023
0.53000	0.38017	0.0136	222.0409	15.0671	0.0170	0.0024
0.53500	0.41604	0.0149	258.0610	15.0140	0.0189	0.0029
0.54000	0.45434	0.0163	298.7397	14.9694	0.0211	0.0032
0.54500	0.49514	0.0177	329.0704	14.9373	0.0235	0.0035
0.55000	0.53957	0.0193	364.3392	14.9176	0.0261	0.0039
0.55500	0.58844	0.0210	397.5667	14.9002	0.0289	0.0043
0.56000	0.63351	0.0227	428.6318	14.8851	0.0319	0.0048
0.56500	0.68520	0.0246	456.1491	14.8723	0.0352	0.0053
0.57000	0.73900	0.0265	478.0143	14.8616	0.0388	0.0058





1.500000	27.77324	0.9955	0.0000	5.2130	14.7754	22.744
1.600000	27.74612	0.9948	0.0000	4.4474	17.5623	24.444
1.700000	27.74613	0.9944	0.0000	4.6214	20.3355	26.414
1.800000	26.44757	0.9945	0.0000	4.1781	23.0497	28.607
1.900000	25.45320	0.9195	0.0000	4.1427	25.6615	30.640
2.000000	24.45142	0.4744	0.0000	1.0692	24.1679	32.414
2.100000	23.15327	0.4299	0.0000	3.7861	30.5686	45.999
2.200000	21.41254	0.7810	0.0000	1.4404	12.7070	49.388
2.300000	20.44877	0.7316	0.0000	1.4994	34.9110	52.567
2.400000	19.15010	0.4444	0.0000	1.3719	16.4914	55.550
2.500000	17.97543	0.4407	0.0000	3.2554	18.7255	54.337
2.600000	16.45849	0.5971	0.0000	3.1449	40.4687	60.936
2.700000	15.50554	0.5558	0.0000	1.0512	42.0743	63.356
2.800000	14.49290	0.5169	0.0000	2.9413	43.5721	65.609
2.900000	13.40540	0.4488	0.0000	2.4744	44.9628	67.703
3.000000	12.45891	0.4444	0.0000	2.7017	46.2545	69.649
3.100000	11.57445	0.4150	0.0000	2.7304	47.4546	71.454
3.200000	10.74955	0.3854	0.0000	2.6445	48.5716	73.139
3.300000	10.00467	0.3587	0.0000	2.4030	49.6114	74.707
3.400000	9.30759	0.3334	0.0000	2.4455	50.5744	76.156
3.500000	8.64159	0.3105	0.0000	2.4918	51.4744	77.504
3.600000	8.04449	0.2891	0.0000	2.4415	52.3104	78.767
3.700000	7.51404	0.2693	0.0000	2.3841	53.0807	79.936
3.800000	7.00547	0.2511	0.0000	2.3499	53.8144	81.037
3.900000	6.53558	0.2343	0.0000	2.3081	54.4914	82.051
4.000000	6.10227	0.2187	0.0000	2.2687	55.1212	83.007
4.100000	5.70159	0.2044	0.0000	2.2314	55.7131	83.899
4.200000	5.33114	0.1911	0.0000	2.1962	56.2645	84.720
4.300000	4.99400	0.1784	0.0000	2.1629	56.7843	85.497
4.400000	4.67727	0.1675	0.0000	2.1312	57.2832	86.228
4.500000	4.37907	0.1570	0.0000	2.1012	57.7545	86.905
4.600000	4.10744	0.1472	0.0000	2.0727	58.1397	87.544
4.700000	3.85573	0.1382	0.0000	2.0455	58.5377	88.143
4.800000	3.62221	0.1294	0.0000	2.0194	58.9414	88.704
4.900000	3.40544	0.1221	0.0000	1.9950	59.3627	89.235
5.000000	3.20409	0.1148	0.0000	1.9714	59.8010	89.732
5.100000	3.01649	0.1081	0.0000	1.9489	59.8448	90.200
5.200000	2.84274	0.1019	0.0000	1.9274	60.1949	90.641
5.300000	2.68464	0.0961	0.0000	1.9064	60.4729	91.057
5.400000	2.54054	0.0907	0.0000	1.8871	60.7134	91.444
5.500000	2.41471	0.0854	0.0000	1.8641	60.9242	91.819
5.600000	2.30727	0.0809	0.0000	1.8510	61.2114	92.169
5.700000	2.21845	0.0765	0.0000	1.8374	61.4309	92.500
5.800000	2.01981	0.0724	0.0000	1.8154	61.4384	92.812
5.900000	1.91256	0.0684	0.0000	1.7947	61.8351	93.108
6.000000	1.81217	0.0650	0.0000	1.7842	62.0213	93.389
6.100000	1.71814	0.0614	0.0000	1.7692	62.1976	93.654
6.200000	1.63002	0.0584	0.0000	1.7548	62.3652	93.904
6.300000	1.54737	0.0555	0.0000	1.7410	62.5240	94.144
6.40 00	1.46940	0.0527	0.0000	1.7274	62.6748	94.371
6.500 0	1.39694	0.0501	0.0000	1.7144	62.8181	94.588
6.60000	1.32844	0.0474	0.0000	1.7021	62.9543	94.794
6.70000	1.26400	0.0453	0.0000	1.6901	63.0839	94.989
6.80000	1.20349	0.0431	0.0000	1.6784	63.2073	95.174
6.90000	1.14641	0.0411	0.0000	1.6671	63.3247	95.351

7.00000	1.09244	0.0392	0.0000	1.6562	63.4347	95.520
7.10000	1.04107	0.0373	0.0000	1.6454	63.5634	95.680
7.20000	0.99414	0.0354	0.0000	1.6351	63.6452	95.834
7.30000	0.94499	0.0340	0.0000	1.6254	63.7423	95.980
7.40000	0.90435	0.0325	0.0000	1.6157	63.8350	96.120
7.50000	0.84604	0.0310	0.0000	1.6064	63.9236	96.253
7.60000	0.82791	0.0297	0.0000	1.5973	64.0083	96.381
7.70000	0.78144	0.0284	0.0000	1.5884	64.0883	96.509
7.80000	0.75777	0.0272	0.0000	1.5799	64.1648	96.619
7.90000	0.72517	0.0260	0.0000	1.5716	64.2409	96.731
8.00000	0.69472	0.0249	0.0000	1.5634	64.3119	96.838
8.10000	0.66544	0.0239	0.0000	1.5554	64.3799	96.940
8.20000	0.63804	0.0229	0.0000	1.5480	64.4451	97.034
8.30000	0.61199	0.0219	0.0000	1.5409	64.5076	97.132
8.40000	0.58704	0.0210	0.0000	1.5332	64.5675	97.223
8.50000	0.56347	0.0202	0.0000	1.5262	64.6250	97.309
8.60000	0.54097	0.0194	0.0000	1.5193	64.6802	97.392
8.70000	0.51941	0.0184	0.0000	1.5124	64.7332	97.472
8.80000	0.49894	0.0179	0.0000	1.5060	64.7842	97.549
8.90000	0.47944	0.0172	0.0000	1.4994	64.8331	97.623
9.00000	0.46142	0.0164	0.0000	1.4934	64.8802	97.693
9.10000	0.44394	0.0159	0.0000	1.4874	64.9255	97.762
9.20000	0.42721	0.0153	0.0000	1.4814	64.9690	97.827
9.30000	0.41127	0.0147	0.0000	1.4754	65.0109	97.890
9.40000	0.39604	0.0142	0.0000	1.4700	65.0513	97.951
9.50000	0.38151	0.0137	0.0000	1.4645	65.0902	98.010
9.60000	0.36764	0.0132	0.0000	1.4591	65.1274	98.064
9.70000	0.35434	0.0127	0.0000	1.4538	65.1637	98.120
9.80000	0.34171	0.0122	0.0000	1.4484	65.1985	98.173
9.90000	0.32940	0.0118	0.0000	1.4436	65.2321	98.223
10.00000	0.31802	0.0114	0.0000	1.4387	65.2645	98.272
10.10000	0.30694	0.0110	0.0000	1.4338	65.2957	98.319
10.20000	0.29634	0.0104	0.0000	1.4291	65.3259	98.364
10.30000	0.28619	0.0103	0.0000	1.4245	65.3550	98.404
10.40000	0.27644	0.0099	0.0000	1.4200	65.3831	98.451
10.50000	0.26715	0.0094	0.0000	1.4156	65.4103	98.499
10.60000	0.25822	0.0093	0.0000	1.4112	65.4366	98.539
10.70000	0.24964	0.0089	0.0000	1.4070	65.4619	98.569
10.80000	0.24144	0.0087	0.0000	1.4028	65.4863	98.606
10.90000	0.23357	0.0084	0.0000	1.3987	65.5102	98.642
11.00000	0.22601	0.0081	0.0000	1.3947	65.5337	98.677
11.10000	0.21874	0.0074	0.0000	1.3904	65.5555	98.710
11.20000	0.21174	0.0074	0.0000	1.3870	65.5770	98.743
11.30000	0.20504	0.0074	0.0000	1.3832	65.5978	98.774
11.40000	0.19844	0.0071	0.0000	1.3794	65.6184	98.804
11.50000	0.19244	0.0069	0.0000	1.3759	65.6374	98.834
11.60000	0.18651	0.0067	0.0000	1.3721	65.6545	98.862
11.70000	0.18079	0.0065	0.0000	1.3684	65.6749	98.890
11.80000	0.17524	0.0063	0.0000	1.3644	65.6927	98.917
11.90000	0.16999	0.0061	0.0000	1.3620	65.7099	98.943
12.00000	0.16489	0.0059	0.0000	1.3587	65.7247	98.968

VISIBILITY AND OTHER DATA FOR PLASMA RADIATION, MECHANICS DIVISION, U.S. AIR FORCE, UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 12262.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1900.0  
DEGREES FAHRENHEIT = 2960.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.66 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 75.76 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 24.11 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.009.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 315.009 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 1.025 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.5251 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.9221 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 73.69 WATT/CM<sup>2</sup> OR 7.369E+08 ERG/SEC/CM<sup>2</sup> OR 1.74509E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 45.88 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: W = B \* T<sup>N</sup>

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 12262.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1900.0  
DEGREES FAHRENHEIT = 2960.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPO-NENT N FOR B * T <sup>N</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00287	0.00788E-05	0.0000	21.4314	5.35400E-05	0.000
0.35500	0.00313	0.0001	0.0000	21.3249	4.97270E-05	0.000
0.36000	0.00345	0.0001	0.0000	21.2097	4.60470E-05	0.000
0.36500	0.00386	0.0002	0.0000	21.0824	0.0001	0.000
0.37000	0.00437	0.0002	0.0000	20.9423	0.0001	0.000
0.37500	0.00498	0.0003	0.0000	20.7895	0.0002	0.000
0.38000	0.00569	0.0003	0.0000	20.6234	0.0002	0.000
0.38500	0.00651	0.0004	0.0000	20.4451	0.0003	0.000
0.39000	0.00743	0.0005	0.0000	20.2537	0.0004	0.000
0.39500	0.00846	0.0006	0.0000	20.0492	0.0004	0.001
0.40000	0.00960	0.0007	0.0000	19.8314	0.0005	0.001
0.40500	0.01084	0.0008	0.0000	19.5999	0.0007	0.001
0.41000	0.01219	0.0010	0.0000	19.3544	0.0008	0.001
0.41500	0.01364	0.0011	0.0000	19.0943	0.0010	0.001
0.42000	0.01520	0.0013	0.0000	18.8191	0.0012	0.002
0.42500	0.01687	0.0016	0.0000	18.5292	0.0014	0.002
0.43000	0.01865	0.0019	0.0000	18.2247	0.0017	0.002
0.43500	0.02054	0.0023	0.0000	17.9057	0.0020	0.003
0.44000	0.02255	0.0028	0.0000	17.5722	0.0023	0.003
0.44500	0.02468	0.0033	0.0000	17.2243	0.0027	0.004
0.45000	0.02693	0.0039	0.0000	16.8619	0.0032	0.004
0.45500	0.02931	0.0046	0.0000	16.4850	0.0037	0.005
0.46000	0.03182	0.0054	0.0000	16.0934	0.0043	0.006
0.46500	0.03446	0.0063	0.0000	15.6868	0.0050	0.007
0.47000	0.03724	0.0073	0.0000	15.2649	0.0058	0.008
0.47500	0.04016	0.0085	0.0000	14.8274	0.0067	0.009
0.48000	0.04323	0.0100	0.0000	14.3740	0.0078	0.010
0.48500	0.04645	0.0116	0.0000	13.9044	0.0090	0.012
0.49000	0.04983	0.0134	0.0000	13.4192	0.0104	0.014
0.49500	0.05337	0.0154	0.0000	12.9181	0.0120	0.016
0.50000	0.05708	0.0177	0.0000	12.4016	0.0138	0.018
0.50500	0.06096	0.0203	0.0000	11.8702	0.0158	0.020
0.51000	0.06501	0.0232	0.0000	11.3244	0.0180	0.022
0.51500	0.06924	0.0264	0.0000	10.7647	0.0204	0.025
0.52000	0.07366	0.0299	0.0000	10.1916	0.0231	0.028
0.52500	0.07828	0.0338	0.0000	9.6054	0.0261	0.031
0.53000	0.08311	0.0381	0.0000	9.0065	0.0294	0.035
0.53500	0.08816	0.0428	0.0000	8.3952	0.0331	0.039
0.54000	0.09343	0.0479	0.0000	7.7718	0.0372	0.043
0.54500	0.09893	0.0534	0.0000	7.1366	0.0418	0.048
0.55000	0.10466	0.0593	0.0000	6.4898	0.0469	0.053
0.55500	0.11063	0.0657	0.0000	5.8326	0.0525	0.059
0.56000	0.11685	0.0726	0.0000	5.1652	0.0587	0.064
0.56500	0.12332	0.0799	0.0000	4.4878	0.0655	0.071
0.57000	0.13005	0.0877	0.0000	3.8006	0.0729	0.078

0.57500	1.13819	0.0397	798.1821	11.1671	0.0829	0.055
0.58000	1.22099	0.0383	722.3353	11.0518	0.0888	0.091
0.58500	1.10778	0.0410	798.9382	12.0420	1.0851	0.107
0.59000	1.10855	0.0430	719.9158	12.8123	0.0819	0.111
0.59500	1.88381	0.0488	705.7838	12.7245	0.0811	0.121
0.60000	1.59288	0.0500	681.8859	12.6185	0.0888	0.131
0.60500	1.69564	0.0532	653.7718	12.5182	0.1050	0.142
0.61000	1.80308	0.0588	616.7177	12.4118	0.1118	0.158
0.61500	1.91871	0.0601	578.1880	12.3107	0.1211	0.167
0.62000	2.03068	0.0637	526.1078	12.2118	0.1329	0.180
0.62500	2.14093	0.0675	488.5048	12.1138	0.1438	0.198
0.63000	2.27557	0.0718	410.0888	12.0178	0.1588	0.208
0.63500	2.40480	0.0758	358.7932	11.9230	0.1811	0.225
0.64000	2.53788	0.0798	311.9788	11.8299	0.1785	0.242
0.64500	2.67521	0.0838	251.0813	11.7382	0.1815	0.258
0.65000	2.81710	0.0888	208.8725	11.6479	0.2052	0.278
0.65500	2.96132	0.0930	181.2187	11.5590	0.2187	0.297
0.66000	3.11388	0.0977	129.1619	11.4718	0.2189	0.318
0.66500	3.28881	0.1028	100.0201	11.3852	0.2508	0.339
0.67000	3.42787	0.1075	78.5881	11.3002	0.2678	0.362
0.67500	3.59003	0.1128	65.1822	11.2185	0.2881	0.388
0.68000	3.75837	0.1179	43.8888	11.1381	0.3038	0.411
0.68500	3.92995	0.1233	31.8011	11.0528	0.3227	0.437
0.69000	4.10581	0.1288	22.8929	10.9727	0.3828	0.488
0.69500	4.28532	0.1388	18.8099	10.8918	0.3818	0.492
0.70000	4.48900	0.1402	12.4598	10.8120	0.3857	0.529
0.70500	4.65881	0.1461	9.3828	10.7343	0.4085	0.553
0.71000	4.88807	0.1521	8.9210	10.6512	0.4122	0.585
0.71500	5.08332	0.1588	5.1882	10.5892	0.4570	0.618
0.72000	5.28228	0.1688	3.9212	10.5158	0.4827	0.651
0.72500	5.48888	0.1708	2.5318	10.4331	0.5088	0.688
0.73000	5.65188	0.1773	1.9218	10.3418	0.5171	0.727
0.73500	5.88088	0.1888	1.5281	10.2411	0.5888	0.788
0.74000	6.07371	0.1908	1.2189	10.2115	0.5887	0.808
0.74500	6.28088	0.1973	0.8558	10.1829	0.6287	0.888
0.75000	6.50958	0.2082	0.6827	10.1552	0.6887	0.891
0.75500	6.75781	0.2181	0.8080	0.9828	0.7288	0.983
0.76000	7.41798	0.2327	0.8080	0.8121	0.7878	1.080
0.76500	7.58888	0.2475	0.8080	0.7271	0.8788	1.181
0.77000	8.18979	0.2625	0.8080	0.6581	0.9557	1.293
0.77500	8.88988	0.2779	0.8080	0.8888	1.0818	1.410
0.78000	9.38888	0.2838	0.8080	0.8878	1.1129	1.533
0.78500	9.88888	0.3088	0.8080	0.8339	1.2280	1.683
0.79000	10.38888	0.3255	0.8080	0.1227	1.3102	1.800
0.79500	10.88888	0.3417	0.8080	0.1181	1.4388	1.988
0.80000	11.41775	0.3582	0.8080	0.0881	1.5881	2.095
0.80500	11.98888	0.3787	0.8080	0.8080	1.8888	2.251
0.81000	12.47888	0.3913	0.8080	0.7038	1.7870	2.819
0.81500	13.08888	0.4080	0.8080	0.6050	1.9188	2.981
0.82000	13.53888	0.4287	0.8080	0.8080	2.0871	2.771
0.82500	14.07388	0.4415	0.8080	0.8181	2.1852	2.957
0.83000	14.80788	0.4582	0.8080	0.1219	2.3288	3.159
0.83500	15.13888	0.4789	0.8080	0.2118	2.4773	3.351
0.84000	15.87088	0.4818	0.8080	0.1831	2.6318	3.561
0.84500	16.19888	0.5081	0.8080	0.0589	2.7888	3.777

0.85000	16.72387	0.5288	0.8080	7.9721	2.9558	4.808
0.85500	17.24817	0.5409	0.8080	7.8888	3.1252	4.230
0.86000	17.78888	0.5572	0.8080	7.8088	3.3083	4.487
0.86500	18.27388	0.5732	0.8080	7.7230	3.4888	4.718
0.87000	18.77888	0.5891	0.8080	7.6512	3.6887	4.987
0.87500	19.27011	0.6087	0.8080	7.5888	3.8888	5.219
0.88000	19.77210	0.6202	0.8080	7.5088	4.0813	5.481
0.88500	20.28888	0.6358	0.8080	7.4277	4.2518	5.758
0.89000	20.71888	0.6508	0.8080	7.3551	4.4888	6.031
0.89500	21.20888	0.6652	0.8080	7.2889	4.6881	6.315
0.90000	21.68788	0.6797	0.8080	7.2159	4.8888	6.605
0.90500	22.12088	0.6939	0.8080	7.1482	5.0988	6.902
0.91000	22.58888	0.7078	0.8080	7.0817	5.3229	7.208
0.91500	22.98888	0.7218	0.8080	7.0168	5.5587	7.519
0.92000	23.42291	0.7387	0.8080	6.9528	5.7828	7.826
0.92500	23.81788	0.7577	0.8080	6.8888	6.0181	8.188
0.93000	24.28181	0.7688	0.8080	6.8282	6.2585	8.479
0.93500	24.83588	0.7728	0.8080	6.7677	6.5039	8.802
0.94000	25.01953	0.7888	0.8080	6.7081	6.7522	9.138
0.94500	25.39281	0.7965	0.8080	6.6500	7.0081	9.480
0.95000	25.75851	0.8070	0.8080	6.5828	7.2600	9.828
0.95500	26.18873	0.8189	0.8080	6.5381	7.5183	10.177
0.96000	26.88888	0.8288	0.8080	6.4810	7.7821	10.532
0.96500	26.77528	0.8399	0.8080	6.4288	8.0482	10.889
0.97000	27.09382	0.8499	0.8080	6.3732	8.3178	11.257
0.97500	27.80083	0.8595	0.8080	6.3207	8.5980	11.628
0.98000	27.88888	0.8688	0.8080	6.2681	8.8888	11.988
0.98500	27.98182	0.8777	0.8080	6.2181	9.1819	12.378
0.99000	28.25588	0.8883	0.8080	6.1688	9.4251	12.758
0.99500	28.51835	0.8988	0.8080	6.1193	9.7080	13.188
1.00000	28.77012	0.9025	0.8080	6.0711	9.9855	13.528
1.00500	29.01181	0.9100	0.8080	6.0238	10.2888	13.919
1.01000	29.28180	0.9171	0.8080	5.9769	10.5757	14.311
1.01500	29.88128	0.9281	0.8080	5.9309	10.8682	14.710
1.02000	29.87028	0.9387	0.8080	5.8857	11.1688	15.119
1.02500	29.86873	0.9489	0.8080	5.8412	11.4625	15.513
1.03000	30.05882	0.9628	0.8080	5.7971	11.7622	15.919
1.03500	30.23888	0.9888	0.8080	5.7582	12.0618	16.327
1.04000	30.40218	0.9537	0.8080	5.7118	12.3688	16.737
1.04500	30.58012	0.9888	0.8080	5.6700	12.6717	17.150
1.05000	30.70881	0.9832	0.8080	5.6288	12.9780	17.568
1.05500	30.88888	0.9875	0.8080	5.5883	13.2858	17.981
1.06000	30.97888	0.9718	0.8080	5.5488	13.5888	18.399
1.06500	31.08888	0.9788	0.8080	5.5091	13.8953	18.819
1.07000	31.20888	0.9788	0.8080	5.4708	14.2188	19.281
1.07500	31.38888	0.9828	0.8080	5.4322	14.5203	19.688
1.08000	31.50779	0.9888	0.8080	5.3987	14.8228	20.088
1.08500	31.88138	0.9875	0.8080	5.3578	15.1272	20.518
1.09000	31.55882	0.9899	0.8080	5.3212	15.4278	20.980
1.09500	31.62318	0.9920	0.8080	5.2852	15.7883	21.388
1.10000	31.88178	0.9938	0.8080	5.2888	16.1088	21.798
1.10500	31.73218	0.9958	0.8080	5.2188	16.4229	22.225
1.11000	31.77519	0.9967	0.8080	5.1888	16.7395	22.655
1.11500	31.81081	0.9978	0.8080	5.1888	17.0578	23.085
1.12000	31.81821	0.9987	0.8080	5.1137	17.3757	23.518

1.40000	11.45877	0.0493	0.0000	5.0800	17.6842	21.987
1.40000	11.70925	0.0745	0.0000	5.0745	17.6774	21.987
1.70000	11.01747	0.0730	0.0000	4.5780	24.0174	24.254
1.80000	20.94014	0.0194	0.0000	4.2594	27.0684	32.505
1.90000	20.47541	0.0479	0.0000	4.0601	29.8944	34.814
2.00000	27.14471	0.0515	0.0000	3.8734	32.7844	40.609
2.10000	25.98910	0.0027	0.0000	3.7200	35.4254	44.376
2.20000	24.70902	0.0751	0.0000	3.5552	37.9055	47.945
2.30000	22.44441	0.0041	0.0000	3.4140	40.2247	51.301
2.40000	20.91040	0.0545	0.0000	3.2952	42.1844	54.444
2.50000	19.37803	0.4110	0.0000	3.1424	44.4142	57.370
2.60000	18.10092	0.5674	0.0000	3.0794	46.2945	60.113
2.70000	16.40504	0.5271	0.0000	2.9840	48.1141	62.655
2.80000	15.59264	0.4491	0.0000	2.8470	49.4543	65.014
2.90000	14.46339	0.4537	0.0000	2.8174	51.1804	67.207
3.00000	13.41400	0.4204	0.0000	2.7814	52.5517	69.240
3.10000	12.44414	0.3901	0.0000	2.7440	54.1840	71.174
3.20000	11.54444	0.3622	0.0000	2.7114	55.0449	72.875
3.30000	10.71444	0.3162	0.0000	2.6715	56.1577	74.494
3.40000	9.95477	0.3121	0.0000	2.6315	57.1894	76.004
3.50000	9.25041	0.2702	0.0000	2.6460	58.4441	77.402
3.60000	8.40221	0.2694	0.0000	2.6441	59.1444	78.701
3.70000	8.00471	0.2511	0.0000	2.6490	59.4427	79.904
3.80000	7.44424	0.2334	0.0000	2.6477	60.4443	81.032
3.90000	6.94444	0.2170	0.0000	2.6464	61.3640	82.077
4.00000	6.47911	0.2032	0.0000	2.6455	62.0440	83.051
4.10000	6.04441	0.1897	0.0000	2.6447	62.6621	84.054
4.20000	5.65004	0.1772	0.0000	2.6445	63.2447	84.887
4.30000	5.28241	0.1657	0.0000	2.6444	63.7941	85.594
4.40000	4.94414	0.1551	0.0000	2.6457	64.1047	86.334
4.50000	4.62912	0.1452	0.0000	2.6447	64.7824	87.020
4.60000	4.31894	0.1341	0.0000	2.6441	65.2303	87.677
4.70000	4.07012	0.1277	0.0000	2.6424	65.6511	88.244
4.80000	3.82101	0.1190	0.0000	2.6410	66.0445	88.852
4.90000	3.59004	0.1126	0.0000	2.6400	66.4149	89.384
5.00000	3.37544	0.1059	0.0000	2.6413	66.7641	89.847
5.10000	3.17440	0.0977	0.0000	2.6415	67.0914	90.354
5.20000	2.99154	0.0914	0.0000	2.6407	67.3999	91.219
5.30000	2.81940	0.0844	0.0000	2.6404	67.6903	91.619
5.40000	2.64914	0.0814	0.0000	2.6407	67.9647	91.981
5.50000	2.49041	0.0747	0.0000	2.6414	68.2225	92.332
5.60000	2.33744	0.0744	0.0000	2.6430	68.4645	92.662
5.70000	2.24047	0.0703	0.0000	2.6470	68.6970	92.974
5.80000	2.11104	0.0665	0.0000	2.6494	68.9140	93.269
5.90000	2.00591	0.0628	0.0000	2.6472	69.1211	93.544
6.00000	1.89947	0.0594	0.0000	2.6462	69.3143	93.811
6.10000	1.80040	0.0564	0.0000	2.6454	69.5013	94.063
6.20000	1.70749	0.0534	0.0000	2.6442	69.6744	94.300
6.30000	1.62042	0.0504	0.0000	2.6434	69.8410	94.525
6.40000	1.53444	0.0483	0.0000	2.6425	70.0009	94.739
6.50000	1.44144	0.0450	0.0000	2.6430	70.1549	94.942
6.60000	1.34874	0.0434	0.0000	2.6400	70.2914	95.135
6.70000	1.27240	0.0415	0.0000	2.6402	70.4290	95.314
6.80000	1.25444	0.0395	0.0000	2.6470	70.5540	95.493
6.90000	1.19421	0.0374	0.0000	2.6470	70.6804	95.659

7.00000	1.14170	0.0354	0.0000	1.4344	70.7977	95.814
7.10000	1.08443	0.0341	0.0000	1.4242	70.9002	95.944
7.20000	1.03412	0.0326	0.0000	1.4143	71.0155	96.112
7.30000	0.99074	0.0311	0.0000	1.4144	71.1144	96.250
7.40000	0.94607	0.0297	0.0000	1.4073	71.2134	96.381
7.50000	0.90171	0.0283	0.0000	1.4044	71.3042	96.504
7.60000	0.86375	0.0271	0.0000	1.4045	71.3946	96.625
7.70000	0.82491	0.0259	0.0000	1.4000	71.4791	96.740
7.80000	0.79014	0.0244	0.0000	1.4024	71.5584	96.849
7.90000	0.75425	0.0237	0.0000	1.4044	71.6371	96.954
8.00000	0.72414	0.0227	0.0000	1.4047	71.7111	97.054
8.10000	0.69370	0.0214	0.0000	1.4041	71.7820	97.150
8.20000	0.66441	0.0209	0.0000	1.4037	71.8499	97.242
8.30000	0.63741	0.0200	0.0000	1.4044	71.9144	97.330
8.40000	0.61141	0.0192	0.0000	1.4074	71.9775	97.414
8.50000	0.58671	0.0184	0.0000	1.4066	72.0374	97.495
8.60000	0.56322	0.0177	0.0000	1.4039	72.0949	97.573
8.70000	0.54049	0.0170	0.0000	1.4074	72.1501	97.644
8.80000	0.51844	0.0163	0.0000	1.4011	72.2031	97.719
8.90000	0.49841	0.0157	0.0000	1.4040	72.2540	97.784
9.00000	0.48014	0.0151	0.0000	1.4040	72.3030	97.854
9.10000	0.46144	0.0145	0.0000	1.4030	72.3501	97.914
9.20000	0.44434	0.0139	0.0000	1.4073	72.3944	97.964
9.30000	0.42770	0.0134	0.0000	1.4017	72.4330	98.030
9.40000	0.41110	0.0129	0.0000	1.4067	72.4809	98.094
9.50000	0.39441	0.0124	0.0000	1.4009	72.5214	98.150
9.60000	0.38214	0.0120	0.0000	1.4044	72.5641	98.201
9.70000	0.36812	0.0114	0.0000	1.4004	72.5978	98.254
9.80000	0.35511	0.0111	0.0000	1.4035	72.6340	98.303
9.90000	0.34244	0.0107	0.0000	1.4004	72.6689	98.350
10.00000	0.33041	0.0104	0.0000	1.4029	72.7025	98.394
10.10000	0.31844	0.0100	0.0000	1.4012	72.7350	98.439
10.20000	0.30740	0.0097	0.0000	1.4044	72.7643	98.489
10.30000	0.29722	0.0093	0.0000	1.4022	72.7965	98.524
10.40000	0.28702	0.0090	0.0000	1.4074	72.8257	98.569
10.50000	0.27734	0.0087	0.0000	1.4035	72.8540	98.600
10.60000	0.26844	0.0084	0.0000	1.4041	72.8812	98.637
10.70000	0.25914	0.0081	0.0000	1.4042	72.9076	98.671
10.80000	0.25041	0.0079	0.0000	1.4011	72.9331	98.707
10.90000	0.24241	0.0076	0.0000	1.4072	72.9577	98.741
11.00000	0.23441	0.0074	0.0000	1.4033	72.9814	98.773
11.10000	0.22644	0.0071	0.0000	1.4044	73.0044	98.804
11.20000	0.21922	0.0069	0.0000	1.4054	73.0270	98.835
11.30000	0.21274	0.0067	0.0000	1.4071	73.0484	98.864
11.40000	0.20644	0.0065	0.0000	1.4044	73.0695	98.892
11.50000	0.20042	0.0061	0.0000	1.4040	73.0899	98.920
11.60000	0.19441	0.0061	0.0000	1.4014	73.1095	98.944
11.70000	0.18874	0.0059	0.0000	1.4042	73.1245	98.972
11.80000	0.18314	0.0057	0.0000	1.4040	73.1470	98.997
11.90000	0.17742	0.0055	0.0000	1.4014	73.1649	99.021
12.00000	0.17194	0.0054	0.0000	1.4044	73.1822	99.045

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1874.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1950.9  
DEGREE FAHRENHEIT = 3550.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 0.48 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 145.78 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 33.07 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.011 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 119.001 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 1.200 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.8869 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.8729 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 41.08 WATT/CM<sup>2</sup> OR 8.197720E+08 ENRG/SEC/CM<sup>2</sup> OR 1.94510E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 34.30 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = 8.87E-4

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1874.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 1950.9  
DEGREE FAHRENHEIT = 3550.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR KETON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00500	0.0001	0.0000	21.0769	0.00079-05	0.000
0.35500	0.00627	0.0002	0.0000	20.7401	0.0001	0.000
0.36000	0.00780	0.0002	0.0000	20.4415	0.0002	0.000
0.36500	0.00944	0.0003	0.0000	20.2107	0.0002	0.000
0.37000	0.01143	0.0003	0.0000	19.9374	0.0003	0.000
0.37500	0.01404	0.0004	0.0000	19.6718	0.0003	0.000
0.38000	0.01740	0.0005	0.0000	19.4130	0.0004	0.000
0.38500	0.02109	0.0006	0.0000	19.1604	0.0005	0.001
0.39000	0.02524	0.0007	0.0000	18.9152	0.0006	0.001
0.39500	0.03014	0.0008	0.0000	18.6754	0.0008	0.001
0.40000	0.03575	0.0010	0.0007	18.4423	0.0009	0.001
0.40500	0.04218	0.0012	0.0029	18.2146	0.0011	0.001
0.41000	0.04954	0.0014	0.0404	17.9925	0.0013	0.002
0.41500	0.05792	0.0016	0.0864	17.7757	0.0016	0.003
0.42000	0.06740	0.0019	0.1833	17.5641	0.0019	0.002
0.42500	0.07811	0.0022	0.3878	17.3575	0.0023	0.001
0.43000	0.09015	0.0025	0.7111	17.1556	0.0027	0.003
0.43500	0.10344	0.0029	1.1840	16.9584	0.0032	0.004
0.44000	0.11809	0.0033	1.8543	16.7657	0.0037	0.005
0.44500	0.13542	0.0037	2.8704	16.5774	0.0044	0.005
0.45000	0.15394	0.0042	3.9783	16.3932	0.0051	0.006
0.45500	0.17444	0.0048	5.4938	16.2130	0.0059	0.007
0.46000	0.19699	0.0056	8.0373	16.0364	0.0068	0.008
0.46500	0.22175	0.0061	11.1585	15.8644	0.0079	0.010
0.47000	0.24885	0.0069	15.1904	15.6954	0.0091	0.011
0.47500	0.27843	0.0077	21.2049	15.5304	0.0104	0.013
0.48000	0.31042	0.0086	29.3598	15.3684	0.0119	0.014
0.48500	0.34557	0.0095	39.7130	15.2102	0.0135	0.016
0.49000	0.38342	0.0106	54.2303	15.0549	0.0153	0.019
0.49500	0.42429	0.0117	74.4382	14.9029	0.0173	0.021
0.50000	0.46834	0.0129	102.8673	14.7539	0.0196	0.024
0.50500	0.51570	0.0142	142.7260	14.6074	0.0220	0.027
0.51000	0.56650	0.0154	193.7644	14.4644	0.0247	0.030
0.51500	0.62084	0.0171	256.8959	14.3241	0.0277	0.034
0.52000	0.67894	0.0187	327.8003	14.1864	0.0309	0.038
0.52500	0.74087	0.0204	399.5042	14.0513	0.0345	0.042
0.53000	0.80673	0.0222	472.8707	13.9187	0.0384	0.047
0.53500	0.87666	0.0241	545.4544	13.7887	0.0426	0.052
0.54000	0.95074	0.0262	618.7872	13.6610	0.0471	0.057
0.54500	1.02919	0.0284	695.4506	13.5357	0.0521	0.064
0.55000	1.11200	0.0306	752.3741	13.4124	0.0574	0.070
0.55500	1.19931	0.0330	815.5244	13.2914	0.0632	0.077
0.56000	1.29121	0.0356	873.6104	13.1731	0.0694	0.085
0.56500	1.38774	0.0382	923.8758	13.0565	0.0761	0.091
0.57000	1.48912	0.0410	963.9977	12.9420	0.0833	0.102



1.50000	36.29304	0.99984	0.00000	8.9543	71.0275	75.650
1.60000	35.41627	0.99972	0.00000	8.4549	70.6194	70.054
1.70000	34.41967	0.99957	0.00000	7.9067	70.1741	70.370
1.80000	33.41734	0.99936	0.00000	7.3175	69.7506	70.535
1.90000	31.76964	0.99902	0.00000	6.6915	69.3515	70.511
2.00000	29.98490	0.99856	0.00000	6.0411	68.9399	70.281
2.10000	28.18154	0.99800	0.00000	5.3711	68.5064	69.824
2.20000	26.36014	0.99733	0.00000	4.6747	68.0547	69.147
2.30000	24.520705	0.99656	0.00000	3.9526	67.5894	68.245
2.40000	22.677924	0.99569	0.00000	3.2124	67.1075	67.128
2.50000	21.13740	0.99472	0.00000	2.4514	66.6065	65.804
2.60000	19.49149	0.99365	0.00000	1.6713	66.0912	64.289
2.70000	18.14504	0.99248	0.00000	0.8824	65.5602	62.590
2.80000	16.79844	0.99121	0.00000	0.0861	65.0155	60.720
2.90000	15.55011	0.98984	0.00000	0.7107	64.4592	70.662
3.00000	14.39565	0.98836	0.00000	2.4889	63.8847	72.514
3.10000	13.33043	0.98678	0.00000	2.4224	63.2943	74.204
3.20000	12.34903	0.98510	0.00000	2.3567	62.6897	75.773
3.30000	11.44542	0.98332	0.00000	2.2931	62.0716	77.224
3.40000	10.61511	0.98144	0.00000	2.2308	61.4402	78.560
3.50000	9.85139	0.97946	0.00000	2.1697	60.7959	79.814
3.60000	9.14933	0.97738	0.00000	2.1097	60.1391	80.975
3.70000	8.50391	0.97520	0.00000	2.0508	59.4707	82.051
3.80000	7.91042	0.97292	0.00000	2.0000	58.7900	83.051
3.90000	7.36444	0.97054	0.00000	2.0000	58.0974	83.982
4.00000	6.86205	0.96806	0.00000	2.0000	57.3933	84.850
4.10000	6.39941	0.96548	0.00000	2.0000	56.6771	85.658
4.20000	5.97313	0.96280	0.00000	2.0000	55.9494	86.419
4.30000	5.58009	0.96002	0.00000	2.0000	55.2107	87.117
4.40000	5.21743	0.95714	0.00000	2.0000	54.4607	87.775
4.50000	4.88245	0.95416	0.00000	2.0000	53.6992	88.391
4.60000	4.57104	0.95108	0.00000	2.0000	52.9261	88.967
4.70000	4.28647	0.94790	0.00000	2.0000	52.1414	89.507
4.80000	4.02194	0.94462	0.00000	2.0000	51.3451	90.014
4.90000	3.77651	0.94124	0.00000	2.0000	50.5372	90.489
5.00000	3.54895	0.93776	0.00000	2.0000	49.7187	90.934
5.10000	3.33779	0.93418	0.00000	2.0000	48.8897	91.354
5.20000	3.14144	0.93050	0.00000	2.0000	48.0511	91.751
5.30000	2.95939	0.92672	0.00000	2.0000	47.2038	92.123
5.40000	2.78981	0.92284	0.00000	2.0000	46.3487	92.474
5.50000	2.63191	0.91886	0.00000	2.0000	45.4859	92.804
5.60000	2.48481	0.91478	0.00000	2.0000	44.6154	93.116
5.70000	2.34761	0.91060	0.00000	2.0000	43.7374	93.411
5.80000	2.21957	0.90632	0.00000	2.0000	42.8527	93.689
5.90000	2.09984	0.90194	0.00000	2.0000	41.9612	93.951
6.00000	1.98814	0.89746	0.00000	2.0000	41.0630	94.208
6.10000	1.88347	0.89288	0.00000	2.0000	40.1581	94.438
6.20000	1.78564	0.88820	0.00000	2.0000	39.2464	94.662
6.30000	1.69389	0.88342	0.00000	2.0000	38.3287	94.874
6.40000	1.60720	0.87854	0.00000	2.0000	37.4059	95.075
6.50000	1.52572	0.87356	0.00000	2.0000	36.4784	95.264
6.60000	1.44912	0.86848	0.00000	2.0000	35.5464	95.444
6.70000	1.37622	0.86330	0.00000	2.0000	34.6099	95.621
6.80000	1.31324	0.85802	0.00000	2.0000	33.6689	95.785
6.90000	1.25029	0.85264	0.00000	2.0000	32.7234	95.941

7.00000	1.19099	0.84716	0.00000	1.6174	78.7729	96.090
7.10000	1.13512	0.84178	0.00000	1.5679	78.4801	96.237
7.20000	1.08245	0.83639	0.00000	1.5193	78.1890	96.367
7.30000	1.03277	0.83090	0.00000	1.4709	77.8997	96.486
7.40000	0.98587	0.82541	0.00000	1.4226	77.6124	96.599
7.50000	0.94154	0.81992	0.00000	1.3743	77.3271	96.707
7.60000	0.89972	0.81443	0.00000	1.3260	77.0438	96.810
7.70000	0.86014	0.80894	0.00000	1.2777	76.7624	96.908
7.80000	0.82270	0.80345	0.00000	1.2294	76.4829	97.001
7.90000	0.78725	0.79796	0.00000	1.1811	76.2054	97.089
8.00000	0.75367	0.79247	0.00000	1.1328	75.9299	97.172
8.10000	0.72185	0.78698	0.00000	1.0845	75.6564	97.250
8.20000	0.69167	0.78149	0.00000	1.0362	75.3849	97.323
8.30000	0.66305	0.77600	0.00000	1.0000	75.1154	97.391
8.40000	0.63507	0.77051	0.00000	1.0000	74.8479	97.454
8.50000	0.60772	0.76502	0.00000	1.0000	74.5824	97.512
8.60000	0.58199	0.75953	0.00000	1.0000	74.3189	97.565
8.70000	0.55779	0.75404	0.00000	1.0000	74.0574	97.613
8.80000	0.53407	0.74855	0.00000	1.0000	73.7979	97.656
8.90000	0.51087	0.74306	0.00000	1.0000	73.5404	97.694
9.00000	0.48812	0.73757	0.00000	1.0000	73.2849	97.727
9.10000	0.46584	0.73208	0.00000	1.0000	73.0314	97.755
9.20000	0.44407	0.72659	0.00000	1.0000	72.7799	97.778
9.30000	0.42279	0.72110	0.00000	1.0000	72.5304	97.796
9.40000	0.40199	0.71561	0.00000	1.0000	72.2829	97.809
9.50000	0.38167	0.71012	0.00000	1.0000	72.0374	97.817
9.60000	0.36182	0.70463	0.00000	1.0000	71.7939	97.820
9.70000	0.34243	0.69914	0.00000	1.0000	71.5524	97.818
9.80000	0.32349	0.69365	0.00000	1.0000	71.3129	97.811
9.90000	0.30499	0.68816	0.00000	1.0000	71.0754	97.799
10.00000	0.28693	0.68267	0.00000	1.0000	70.8399	97.782
10.10000	0.26931	0.67718	0.00000	1.0000	70.6064	97.759
10.20000	0.25213	0.67169	0.00000	1.0000	70.3749	97.731
10.30000	0.23539	0.66620	0.00000	1.0000	70.1454	97.698
10.40000	0.21911	0.66071	0.00000	1.0000	69.9179	97.660
10.50000	0.20328	0.65522	0.00000	1.0000	69.6924	97.617
10.60000	0.18790	0.64973	0.00000	1.0000	69.4689	97.569
10.70000	0.17296	0.64424	0.00000	1.0000	69.2474	97.516
10.80000	0.15847	0.63875	0.00000	1.0000	69.0279	97.458
10.90000	0.14443	0.63326	0.00000	1.0000	68.8104	97.395
11.00000	0.13084	0.62777	0.00000	1.0000	68.5949	97.327
11.10000	0.11770	0.62228	0.00000	1.0000	68.3814	97.254
11.20000	0.10501	0.61679	0.00000	1.0000	68.1699	97.176
11.30000	0.09276	0.61130	0.00000	1.0000	67.9604	97.093
11.40000	0.08095	0.60581	0.00000	1.0000	67.7529	97.005
11.50000	0.06958	0.60032	0.00000	1.0000	67.5474	96.912
11.60000	0.05865	0.59483	0.00000	1.0000	67.3439	96.814
11.70000	0.04816	0.58934	0.00000	1.0000	67.1424	96.711
11.80000	0.03811	0.58385	0.00000	1.0000	66.9429	96.603
11.90000	0.02850	0.57836	0.00000	1.0000	66.7454	96.490
12.00000	0.01933	0.57287	0.00000	1.0000	66.5499	96.372



VISIBILITY AND OTHER DATA FOR PLANCK RADIATION, MECHANICS DIVISION, D.R.T. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1726.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2000.0  
DEGREES FAHRENHEIT = 3140.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 1.17 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 145.33 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/P1 OF TOTAL VISIBLE FLUX) IS 46.26 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.011 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 129.588 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 1.002 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.4490 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.4740 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 90.72 WATT/CM<sup>2</sup> OR 9.071529E+04 ERG/SEC/CM<sup>2</sup> OR 2.41615E+02 HCB/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 41.20 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 440 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta M = K \Delta T$  .

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1726.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2000.0  
DEGREES FAHRENHEIT = 3140.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WNTOM	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00007	0.0002	0.0000	20.4500	0.0002	0.000
0.35500	0.01054	0.0003	0.0000	20.2000	0.0002	0.000
0.36000	0.01102	0.0003	0.0000	19.9742	0.0003	0.000
0.36500	0.01509	0.0004	0.0000	19.7755	0.0003	0.000
0.37000	0.01948	0.0005	0.0000	19.6192	0.0004	0.000
0.37500	0.02361	0.0006	0.0000	19.4900	0.0005	0.001
0.38000	0.02843	0.0007	0.0000	19.3878	0.0007	0.001
0.38500	0.03404	0.0008	0.0000	19.3014	0.0008	0.001
0.39000	0.04057	0.0010	0.0000	19.2291	0.0010	0.001
0.39500	0.04808	0.0012	0.0000	19.1699	0.0012	0.001
0.40000	0.05669	0.0014	0.0154	19.1213	0.0014	0.002
0.40500	0.06651	0.0016	0.0362	19.0818	0.0016	0.002
0.41000	0.07764	0.0019	0.0634	19.0427	0.0022	0.002
0.41500	0.09032	0.0022	0.1151	19.0111	0.0025	0.003
0.42000	0.10467	0.0025	0.2044	19.0720	0.0031	0.003
0.42500	0.12054	0.0029	0.5984	19.0235	0.0036	0.004
0.43000	0.13804	0.0034	1.0020	19.0767	0.0043	0.005
0.43500	0.15834	0.0039	1.8091	19.1345	0.0050	0.006
0.44000	0.18048	0.0044	2.8227	19.1966	0.0069	0.006
0.44500	0.20496	0.0050	4.0817	19.2620	0.0088	0.009
0.45000	0.23195	0.0056	5.9936	19.3311	0.0099	0.009
0.45500	0.26142	0.0064	8.5304	19.4077	0.0092	0.010
0.46000	0.29415	0.0071	12.0013	19.4939	0.0105	0.012
0.46500	0.32969	0.0080	16.4902	19.5807	0.0121	0.013
0.47000	0.36842	0.0089	22.7941	19.6732	0.0138	0.015
0.47500	0.41051	0.0100	31.7648	19.7621	0.0158	0.017
0.48000	0.45613	0.0111	43.1139	19.8544	0.0180	0.020
0.48500	0.50545	0.0123	58.0864	19.9499	0.0204	0.022
0.49000	0.55861	0.0136	79.0131	19.0478	0.0230	0.025
0.49500	0.61585	0.0149	108.0444	19.5303	0.0259	0.029
0.50000	0.67724	0.0164	148.7529	19.1950	0.0292	0.033
0.50500	0.74302	0.0180	205.6188	19.2424	0.0327	0.034
0.51000	0.81330	0.0197	278.1804	19.1030	0.0366	0.040
0.51500	0.88824	0.0216	367.2326	19.0960	0.0409	0.045
0.52000	0.96799	0.0235	487.1476	19.0317	0.0455	0.050
0.52500	1.05249	0.0256	567.4509	19.0000	0.0506	0.056
0.53000	1.14244	0.0277	669.6734	19.0704	0.0560	0.062
0.53500	1.23744	0.0300	749.9612	19.0439	0.0620	0.068
0.54000	1.33743	0.0325	867.8759	19.1195	0.0684	0.074
0.54500	1.44361	0.0350	962.0355	19.1973	0.0744	0.081
0.55000	1.55500	0.0377	1052.1114	19.2773	0.0809	0.091
0.55500	1.67201	0.0404	1136.9803	19.3595	0.0880	0.100
0.56000	1.79482	0.0436	1214.1743	19.4438	0.0966	0.110
0.56500	1.92345	0.0467	1280.4810	19.5300	0.1069	0.120
0.57000	2.05800	0.0500	1312.7698	19.6185	0.1184	0.131





THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1774.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2050.0  
DEGREES FAHRENHEIT = 3730.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 1.52 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 194.69 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 62.01 CANDLEA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.015 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 129.142 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 1.944 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.4137 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.7015 MICRONS.  
I.E. THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 100.13 WATT/CM<sup>2</sup> OR 1.00133E+09 FNG/SEC/CM<sup>2</sup> OR 2.30321E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 84.61 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: % = K/M \* 100.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1774.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2050.0  
DEGREES FAHRENHEIT = 3730.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K/T <sup>4</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.01304	0.0003	0.0000	20.0444	0.0003	0.000
0.35500	0.01727	0.0004	0.0000	19.7444	0.0004	0.000
0.36000	0.02119	0.0005	0.0000	19.4919	0.0005	0.000
0.36500	0.02584	0.0006	0.0000	19.2849	0.0006	0.001
0.37000	0.03110	0.0007	0.0000	19.0451	0.0007	0.001
0.37500	0.03709	0.0008	0.0000	18.7722	0.0009	0.001
0.38000	0.04451	0.0010	0.0000	18.4660	0.0011	0.001
0.38500	0.05372	0.0012	0.0000	18.1262	0.0013	0.001
0.39000	0.06562	0.0014	0.0000	17.7625	0.0016	0.002
0.39500	0.08049	0.0016	0.0000	17.3747	0.0020	0.002
0.40000	0.09870	0.0018	0.0000	16.9627	0.0024	0.002
0.40500	0.12057	0.0022	0.0000	16.5261	0.0029	0.003
0.41000	0.14714	0.0024	0.0000	16.0672	0.0034	0.003
0.41500	0.17870	0.0030	0.0000	15.5906	0.0041	0.004
0.42000	0.21567	0.0034	0.0000	15.0973	0.0049	0.005
0.42500	0.25814	0.0039	0.0000	14.5882	0.0057	0.006
0.43000	0.30614	0.0045	1.4421	14.0634	0.0066	0.007
0.43500	0.36072	0.0051	2.7074	13.5232	0.0077	0.008
0.44000	0.42290	0.0058	4.2055	12.9679	0.0090	0.009
0.44500	0.49380	0.0064	5.9948	12.3987	0.0104	0.010
0.45000	0.57355	0.0073	8.0510	11.8195	0.0120	0.012
0.45500	0.66270	0.0083	12.5564	11.2221	0.0139	0.014
0.46000	0.76272	0.0092	17.5733	10.6085	0.0159	0.016
0.46500	0.88470	0.0103	24.1932	10.0000	0.0182	0.018
0.47000	1.03012	0.0115	33.1130	9.40299	0.0207	0.021
0.47500	1.19910	0.0127	45.2324	8.82724	0.0235	0.024
0.48000	1.39314	0.0141	62.1353	8.27189	0.0267	0.027
0.48500	1.62514	0.0156	83.3990	7.73667	0.0301	0.030
0.49000	1.90917	0.0171	113.0271	7.2206	0.0339	0.034
0.49500	2.24774	0.0188	153.9980	6.72154	0.0381	0.038
0.50000	2.64190	0.0206	211.2704	6.23827	0.0427	0.043
0.50500	3.09164	0.0224	291.0518	5.77057	0.0477	0.048
0.51000	3.59719	0.0244	397.3853	5.31750	0.0532	0.054
0.51500	4.16872	0.0268	516.2702	4.87954	0.0592	0.059
0.52000	4.80634	0.0291	654.8619	4.45644	0.0657	0.066
0.52500	5.50914	0.0315	792.8653	4.04859	0.0728	0.073
0.53000	6.27714	0.0341	932.4214	3.65619	0.0805	0.080
0.53500	7.11064	0.0368	1080.7460	3.27841	0.0887	0.089
0.54000	8.01034	0.0397	1201.0049	2.91546	0.0974	0.098
0.54500	8.97614	0.0427	1327.3452	2.56644	0.1072	0.107
0.55000	1.00000	0.0459	1447.3838	2.23154	0.1176	0.117
0.55500	1.10000	0.0492	1559.8496	1.91000	0.1287	0.129
0.56000	1.20000	0.0527	1661.1214	1.60000	0.1405	0.140
0.56500	1.30000	0.0563	1754.6974	1.30000	0.1532	0.153
0.57000	1.40000	0.0601	1812.3989	1.00000	0.1664	0.167













VISIBILITY AND OTHER DATA FOR PLASMA RADIATION, MECHANICS DIVISION, D.R.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000% AND THE TEMPERATURE IS 1272.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2150.0  
DEGREES FAHRENHEIT = 3810.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 2.91 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 345.70 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 110.07 CAND/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.021.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 137.663 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 2.654 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.1470 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.4474 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 121.15 WATT/CM<sup>2</sup> OR 1.2115\*10<sup>10</sup> ERG/SEC/CM<sup>2</sup> OR 2.812488\*10<sup>10</sup> KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 59.15 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta E/E = M \Delta T/T$

THE EMISSIVITY IS 1.000% AND THE TEMPERATURE IS 1272.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2150.0  
DEGREES FAHRENHEIT = 3810.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATTS	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.03552	0.0006	0.0000	19.1163	0.0006	0.001
0.35500	0.04331	0.0007	0.0000	18.8470	0.0010	0.001
0.36000	0.05267	0.0009	0.0000	18.4953	0.0012	0.001
0.37500	0.06319	0.0011	0.0000	18.3307	0.0015	0.001
0.37000	0.07561	0.0013	0.0000	18.0830	0.0018	0.002
0.37500	0.08998	0.0015	0.0000	17.8419	0.0022	0.002
0.38000	0.10450	0.0018	0.0000	17.6071	0.0027	0.002
0.38500	0.12539	0.0021	0.0000	17.3744	0.0033	0.003
0.39000	0.14695	0.0025	0.0000	17.1554	0.0040	0.004
0.39500	0.17124	0.0029	0.0000	16.9385	0.0048	0.004
0.40000	0.19874	0.0034	0.0541	16.7267	0.0057	0.005
0.40500	0.22962	0.0039	0.1249	16.5202	0.0068	0.006
0.41000	0.26415	0.0045	0.2155	16.3184	0.0080	0.007
0.41500	0.30264	0.0051	0.4527	16.1222	0.0094	0.008
0.42000	0.34518	0.0058	0.9394	15.9302	0.0110	0.009
0.42500	0.39261	0.0066	1.9489	15.7424	0.0129	0.011
0.43000	0.44470	0.0075	3.5078	15.5598	0.0150	0.012
0.43500	0.50192	0.0085	5.7340	15.3809	0.0173	0.014
0.44000	0.56454	0.0095	8.8101	15.2061	0.0200	0.017
0.44500	0.63294	0.0107	12.4024	15.0353	0.0230	0.019
0.45000	0.70743	0.0120	16.2000	14.8682	0.0264	0.022
0.45500	0.78822	0.0133	20.7274	14.7048	0.0301	0.023
0.46000	0.87565	0.0148	25.7264	14.5450	0.0342	0.026
0.46500	0.97001	0.0164	40.8110	14.3884	0.0389	0.032
0.47000	1.07159	0.0181	64.3102	14.2355	0.0440	0.036
0.47500	1.18067	0.0200	89.9200	14.0857	0.0494	0.041
0.48000	1.29752	0.0219	122.4414	13.9390	0.0558	0.046
0.48500	1.42239	0.0240	163.4612	13.7953	0.0626	0.052
0.49000	1.55554	0.0263	220.0161	13.6545	0.0700	0.058
0.49500	1.69721	0.0287	297.7591	13.5166	0.0781	0.065
0.50000	1.84763	0.0312	405.8127	13.3814	0.0870	0.072
0.50500	2.00700	0.0339	555.4564	13.2486	0.0966	0.080
0.51000	2.17552	0.0368	744.1161	13.1190	0.1071	0.088
0.51500	2.35339	0.0398	972.9864	12.9917	0.1184	0.096
0.52000	2.54077	0.0430	1224.4851	12.8668	0.1306	0.104
0.52500	2.73782	0.0463	1676.3415	12.7442	0.1438	0.119
0.53000	2.94467	0.0498	2246.0472	12.6240	0.1580	0.130
0.53500	3.16144	0.0535	3067.0508	12.5060	0.1733	0.143
0.54000	3.38825	0.0573	4198.0257	12.3902	0.1897	0.157
0.54500	3.62517	0.0613	5619.8159	12.2764	0.2072	0.171
0.55000	3.87229	0.0655	7419.9887	12.1650	0.2259	0.186
0.55500	4.12944	0.0698	9808.1550	12.0554	0.2459	0.203
0.56000	4.39727	0.0743	12975.1938	11.9476	0.2672	0.221
0.56500	4.67520	0.0790	17112.1737	11.8420	0.2899	0.239
0.57000	4.96343	0.0839	22115.1232	11.7382	0.3140	0.259





VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, UNIVERSITY OF DENVER,

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2200.0  
DEGREES FAHRENHEIT = 3500.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 3.17 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 450.00 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 143.24 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.024.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 142.019 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 1.388 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.1173 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.6000 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 132.82 WATT/CM<sup>2</sup> OR 1.32814E+09 PHOT/SEC/CM<sup>2</sup> OR 1.37838E+22 REAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 66.35 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT AND LUMENS PER CM<sup>2</sup> = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENT. CM<sup>2</sup> MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = 24000 / T<sup>2</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2200.0  
DEGREES FAHRENHEIT = 3500.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR B-TOM	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.04085	0.0004	0.0000	18.8818	0.0012	0.001
0.35500	0.04087	0.0010	0.0000	18.8147	0.0015	0.001
0.36000	0.04090	0.0012	0.0000	18.7429	0.0019	0.001
0.36500	0.04093	0.0014	0.0000	18.6714	0.0023	0.002
0.37000	0.04100	0.0017	0.0000	18.6020	0.0028	0.002
0.37500	0.04109	0.0020	0.0000	18.5344	0.0035	0.003
0.38000	0.04120	0.0024	0.0000	18.4689	0.0042	0.003
0.38500	0.04132	0.0028	0.0000	18.4054	0.0051	0.004
0.39000	0.04146	0.0033	0.0000	18.3437	0.0061	0.005
0.39500	0.04161	0.0039	0.0000	18.2835	0.0072	0.005
0.40000	0.04177	0.0044	0.0000	18.2246	0.0084	0.006
0.40500	0.04195	0.0050	0.0000	18.1670	0.0101	0.008
0.41000	0.04214	0.0058	0.0000	18.1107	0.0119	0.009
0.41500	0.04234	0.0066	0.0000	18.0556	0.0140	0.011
0.42000	0.04255	0.0075	0.0000	18.0017	0.0163	0.012
0.42500	0.04277	0.0085	0.0000	17.9490	0.0190	0.014
0.43000	0.04300	0.0095	0.0000	17.8974	0.0219	0.017
0.43500	0.04324	0.0107	0.0000	17.8469	0.0253	0.019
0.44000	0.04349	0.0120	0.0000	17.7974	0.0291	0.022
0.44500	0.04374	0.0134	0.0000	17.7489	0.0333	0.025
0.45000	0.04400	0.0149	0.0000	17.7014	0.0380	0.029
0.45500	0.04426	0.0166	0.0000	17.6549	0.0432	0.033
0.46000	0.04452	0.0184	0.0000	17.6094	0.0489	0.037
0.46500	0.04479	0.0203	0.0000	17.5649	0.0554	0.042
0.47000	0.04505	0.0221	0.0000	17.5214	0.0625	0.047
0.47500	0.04531	0.0245	0.0000	17.4789	0.0702	0.053
0.48000	0.04557	0.0269	0.0000	17.4374	0.0786	0.059
0.48500	0.04583	0.0293	0.0000	17.3959	0.0874	0.066
0.49000	0.04609	0.0320	0.0000	17.3544	0.0967	0.074
0.49500	0.04635	0.0348	0.0000	17.3129	0.1065	0.082
0.50000	0.04661	0.0377	0.0000	17.2714	0.1168	0.091
0.50500	0.04687	0.0409	0.0000	17.2300	0.1274	0.101
0.51000	0.04713	0.0442	0.0000	17.1885	0.1384	0.112
0.51500	0.04739	0.0477	0.0000	17.1470	0.1499	0.123
0.52000	0.04765	0.0511	0.0000	17.1055	0.1617	0.136
0.52500	0.04791	0.0551	0.0000	17.0640	0.1739	0.149
0.53000	0.04817	0.0591	0.0000	17.0225	0.1864	0.163
0.53500	0.04843	0.0633	0.0000	16.9810	0.2000	0.178
0.54000	0.04869	0.0677	0.0000	16.9395	0.2140	0.193
0.54500	0.04895	0.0722	0.0000	16.8980	0.2284	0.209
0.55000	0.04921	0.0769	0.0000	16.8565	0.2432	0.225
0.55500	0.04947	0.0819	0.0000	16.8150	0.2584	0.241
0.56000	0.04973	0.0869	0.0000	16.7735	0.2740	0.258
0.56500	0.04999	0.0922	0.0000	16.7320	0.2900	0.275
0.57000	0.05025	0.0977	0.0000	16.6905	0.3064	0.292



1.50000	43.41674	0.9618	0.0000	4.4154	45.7147	34.041
1.60000	40.91667	0.9184	0.0000	4.1545	51.4544	38.768
1.70000	37.49814	0.8664	0.0000	1.9102	47.3815	43.205
1.80000	33.77747	0.8105	0.0000	1.7111	47.9687	47.395
1.90000	49.97127	0.7531	0.0000	1.5552	48.1142	51.301
2.00000	46.71387	0.6965	0.0000	1.3886	72.9886	56.922
2.10000	42.59314	0.6419	0.0000	1.2784	77.3836	58.264
2.20000	39.14242	0.5902	0.0000	1.1325	81.4694	61.380
2.30000	35.95042	0.5414	0.0000	1.0187	85.2214	64.146
2.40000	32.97041	0.4960	0.0000	2.9157	88.6675	66.740
2.50000	30.22265	0.4535	0.0000	2.8218	91.8253	69.137
2.60000	27.70117	0.4125	0.0000	2.7161	94.7196	71.314
2.70000	25.39475	0.3727	0.0000	2.6576	97.3727	73.314
2.80000	23.29023	0.3317	0.0000	2.5455	99.8053	75.145
2.90000	21.37301	0.2921	0.0000	2.5102	102.0370	76.824
3.00000	19.62821	0.2558	0.0000	2.4574	104.0457	78.368
3.10000	18.04120	0.2219	0.0000	2.4005	105.9679	79.785
3.20000	16.59794	0.1901	0.0000	2.3478	107.6997	81.089
3.30000	15.28540	0.1610	0.0000	2.2983	109.2918	82.288
3.40000	14.09121	0.1344	0.0000	2.2521	110.7597	83.391
3.50000	13.00424	0.1106	0.0000	2.2091	112.1136	84.411
3.60000	12.01421	0.0881	0.0000	2.1690	113.3638	85.354
3.70000	11.11175	0.0675	0.0000	2.1312	114.5194	86.224
3.80000	10.28845	0.0511	0.0000	2.0957	115.5888	87.029
3.90000	9.53667	0.0387	0.0000	2.0622	116.5795	87.775
4.00000	8.84954	0.0314	0.0000	2.0307	117.4943	88.467
4.10000	8.22084	0.0239	0.0000	2.0002	118.3513	89.109
4.20000	7.64407	0.0152	0.0000	1.9727	119.1432	89.704
4.30000	7.11714	0.0073	0.0000	1.9480	119.8819	90.267
4.40000	6.633267	0.0000	0.0000	1.9204	120.5691	90.779
4.50000	6.18751	0.0031	0.0000	1.8966	121.2098	91.261
4.60000	5.77804	0.0071	0.0000	1.8737	121.8078	91.712
4.70000	5.40109	0.0114	0.0000	1.8519	122.3665	92.137
4.80000	5.05361	0.0162	0.0000	1.8312	122.8890	92.528
4.90000	4.73300	0.0213	0.0000	1.8118	123.3781	92.894
5.00000	4.43687	0.0269	0.0000	1.7925	123.8364	93.239
5.10000	4.16304	0.0327	0.0000	1.7744	124.2662	93.563
5.20000	3.90965	0.0389	0.0000	1.7571	124.6697	93.868
5.30000	3.67487	0.0454	0.0000	1.7404	125.0488	94.151
5.40000	3.45715	0.0521	0.0000	1.7247	125.4052	94.420
5.50000	3.25505	0.0591	0.0000	1.7095	125.7407	94.673
5.60000	3.06724	0.0662	0.0000	1.6949	126.0567	94.911
5.70000	2.89262	0.0734	0.0000	1.6809	126.3546	95.135
5.80000	2.73005	0.0811	0.0000	1.6674	126.6356	95.347
5.90000	2.57844	0.0889	0.0000	1.6544	126.9010	95.546
6.00000	2.43731	0.0967	0.0000	1.6416	127.1517	95.735
6.10000	2.30557	0.0347	0.0000	1.6299	127.3888	95.914
6.20000	2.18235	0.0429	0.0000	1.6183	127.6131	96.083
6.30000	2.06722	0.0512	0.0000	1.6071	127.8255	96.242
6.40000	1.95950	0.0595	0.0000	1.5963	128.0268	96.394
6.50000	1.85842	0.0680	0.0000	1.5859	128.2176	96.534
6.60000	1.76409	0.0766	0.0000	1.5754	128.3987	96.674
6.70000	1.67541	0.0853	0.0000	1.5661	128.5706	96.803
6.80000	1.59221	0.0940	0.0000	1.5567	128.7340	96.926
6.90000	1.51405	0.0928	0.0000	1.5476	128.8893	97.043

7.00000	1.44049	0.0217	0.0000	1.5387	129.0370	97.155
7.10000	1.37144	0.0207	0.0000	1.5302	129.1775	97.260
7.20000	1.30644	0.0197	0.0000	1.5219	129.3114	97.361
7.30000	1.24517	0.0184	0.0000	1.5138	129.4389	97.457
7.40000	1.18743	0.0170	0.0000	1.5060	129.5605	97.549
7.50000	1.13397	0.0171	0.0000	1.4985	129.6745	97.636
7.60000	1.08457	0.0163	0.0000	1.4911	129.7872	97.719
7.70000	1.03933	0.0154	0.0000	1.4840	129.8929	97.799
7.80000	0.99717	0.0149	0.0000	1.4770	129.9910	97.875
7.90000	0.95830	0.0142	0.0000	1.4703	130.0905	97.948
8.00000	0.92274	0.0134	0.0000	1.4637	130.1824	98.017
8.10000	0.89044	0.0130	0.0000	1.4573	130.2711	98.084
8.20000	0.86114	0.0125	0.0000	1.4511	130.3556	98.148
8.30000	0.83437	0.0119	0.0000	1.4451	130.4366	98.208
8.40000	0.81025	0.0114	0.0000	1.4392	130.5141	98.267
8.50000	0.78790	0.0110	0.0000	1.4335	130.5885	98.323
8.60000	0.76814	0.0105	0.0000	1.4279	130.6598	98.376
8.70000	0.75087	0.0101	0.0000	1.4224	130.7282	98.428
8.80000	0.73501	0.0097	0.0000	1.4171	130.7938	98.477
8.90000	0.72044	0.0093	0.0000	1.4119	130.8568	98.525
9.00000	0.70710	0.0089	0.0000	1.4069	130.9173	98.570
9.10000	0.69479	0.0084	0.0000	1.4019	130.9755	98.614
9.20000	0.68341	0.0083	0.0000	1.3971	131.0314	98.656
9.30000	0.67275	0.0079	0.0000	1.3924	131.0851	98.697
9.40000	0.66274	0.0076	0.0000	1.3878	131.1369	98.736
9.50000	0.65344	0.0074	0.0000	1.3833	131.1866	98.773
9.60000	0.64470	0.0071	0.0000	1.3789	131.2345	98.809
9.70000	0.63644	0.0068	0.0000	1.3746	131.2806	98.844
9.80000	0.62861	0.0066	0.0000	1.3704	131.3251	98.877
9.90000	0.62134	0.0063	0.0000	1.3663	131.3679	98.910
10.00000	0.614527	0.0061	0.0000	1.3623	131.4092	98.941
10.10000	0.60804	0.0059	0.0000	1.3584	131.4490	98.971
10.20000	0.60170	0.0057	0.0000	1.3545	131.4874	99.000
10.30000	0.59549	0.0055	0.0000	1.3508	131.5244	99.027
10.40000	0.58921	0.0053	0.0000	1.3471	131.5602	99.054
10.50000	0.58321	0.0051	0.0000	1.3435	131.5947	99.080
10.60000	0.57745	0.0049	0.0000	1.3399	131.6280	99.105
10.70000	0.57187	0.0048	0.0000	1.3365	131.6602	99.130
10.80000	0.56649	0.0046	0.0000	1.3331	131.6914	99.153
10.90000	0.56129	0.0045	0.0000	1.3297	131.7214	99.174
11.00000	0.55624	0.0043	0.0000	1.3265	131.7505	99.198
11.10000	0.55134	0.0042	0.0000	1.3233	131.7787	99.219
11.20000	0.54657	0.0040	0.0000	1.3201	131.8059	99.239
11.30000	0.54194	0.0039	0.0000	1.3171	131.8322	99.259
11.40000	0.53744	0.0038	0.0000	1.3140	131.8577	99.278
11.50000	0.53304	0.0037	0.0000	1.3111	131.8824	99.297
11.60000	0.52872	0.0035	0.0000	1.3082	131.9063	99.315
11.70000	0.52449	0.0034	0.0000	1.3053	131.9294	99.332
11.80000	0.52034	0.0033	0.0000	1.3025	131.9519	99.348
11.90000	0.51624	0.0032	0.0000	1.2998	131.9736	99.366
12.00000	0.51219	0.0031	0.0000	1.2971	131.9947	99.382

VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, D.P.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1074.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2250.0  
DEGREES FAHRENHEIT = 3500.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 3.90 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 578.08 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 188.29 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.027 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 188.036 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 3.584 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.2440 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.4231 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 149.31 WATT/CM<sup>2</sup> OR 1.49300E+00 ERG/SEC/CM<sup>2</sup> OR 3.47295E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 70.24 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, 480 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (M) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE STEFAN-BOLTZMANN FORMULA M = K/T<sup>4</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1074.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2250.0  
DEGREES FAHRENHEIT = 3500.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K/T <sup>4</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.00394	0.0011	0.0000	12.2667	0.0019	0.001
0.35400	0.10000	0.0013	0.0000	12.0000	0.0023	0.002
0.36000	0.11946	0.0016	0.0000	12.7523	0.0029	0.002
0.36500	0.14264	0.0019	0.0000	17.5160	0.0035	0.003
0.37000	0.16897	0.0023	0.0000	17.2793	0.0043	0.003
0.37500	0.19885	0.0027	0.0000	17.0489	0.0052	0.004
0.38000	0.23292	0.0031	0.0000	16.8284	0.0063	0.004
0.38500	0.27144	0.0037	0.0000	16.6091	0.0076	0.005
0.39000	0.31444	0.0042	0.0000	16.3932	0.0090	0.006
0.39500	0.36154	0.0049	0.0000	16.1837	0.0107	0.007
0.40000	0.41274	0.0056	0.1137	15.9813	0.0127	0.009
0.40500	0.46850	0.0064	0.2403	15.7860	0.0149	0.010
0.41000	0.52854	0.0073	0.4452	15.6024	0.0175	0.012
0.41500	0.59360	0.0083	0.9769	15.4304	0.0208	0.014
0.42000	0.66404	0.0094	1.9069	15.2722	0.0247	0.016
0.42500	0.74034	0.0106	3.9234	15.1281	0.0293	0.019
0.43000	0.82294	0.0120	7.0044	14.9982	0.0346	0.022
0.43500	0.91240	0.0134	11.3589	14.8821	0.0403	0.025
0.44000	1.00974	0.0149	17.3569	14.7801	0.0463	0.029
0.44500	1.12482	0.0166	24.3504	14.6920	0.0528	0.033
0.45000	1.25884	0.0185	35.3666	14.6183	0.0599	0.037
0.45500	1.41152	0.0204	49.4571	14.5593	0.0671	0.042
0.46000	1.67139	0.0225	68.1926	13.8984	0.0759	0.048
0.46500	1.93864	0.0248	92.5227	13.7491	0.0859	0.054
0.47000	2.21764	0.0272	124.8401	13.6029	0.0975	0.060
0.47500	2.50804	0.0297	168.1659	13.4597	0.0991	0.067
0.48000	2.81081	0.0325	227.8497	13.3195	0.1096	0.075
0.48500	3.12600	0.0354	301.7803	13.1822	0.1222	0.084
0.49000	3.45392	0.0384	403.6579	13.0476	0.1359	0.094
0.49500	3.80480	0.0417	542.9525	12.9159	0.1508	0.104
0.50000	4.17880	0.0451	735.5522	12.7867	0.1669	0.119
0.50500	4.57641	0.0487	1000.8749	12.6601	0.1843	0.127
0.51000	4.99751	0.0525	1333.1049	12.5360	0.2030	0.140
0.51500	5.44237	0.0565	1733.2933	12.4143	0.2233	0.154
0.52000	5.91111	0.0606	2173.1375	12.2944	0.2450	0.169
0.52500	6.40385	0.0650	2601.2177	12.1774	0.2683	0.185
0.53000	6.92064	0.0694	3074.9702	12.0630	0.2933	0.202
0.53500	7.46159	0.0740	3629.3109	11.9502	0.3199	0.220
0.54000	8.02684	0.0792	4184.9653	11.8396	0.3484	0.240
0.54500	8.61670	0.0843	4798.5962	11.7310	0.3787	0.261
0.55000	9.23130	0.0896	5498.9146	11.6243	0.4110	0.283
0.55500	9.87164	0.0950	6298.5962	11.5194	0.4452	0.306
0.56000	10.53793	0.1007	7205.7772	11.4168	0.4816	0.331
0.56500	11.23062	0.1066	8248.2551	11.3154	0.5200	0.358
0.57000	11.95080	0.1124	9413.7430	11.2164	0.5607	0.384





1.50000	71.80049	0.4882	0.0000	2.1711	51.9312	35.470
1.60000	68.91794	0.5001	0.0000	2.2707	48.4944	40.104
1.70000	62.75160	0.5452	0.0000	1.8504	45.1414	44.847
1.80000	58.43204	0.5870	0.0000	1.4567	41.2415	48.024
1.90000	56.08487	0.6284	0.0000	1.4854	46.8444	52.889
2.00000	49.84485	0.6714	0.0000	1.3310	42.0621	56.475
2.10000	45.79714	0.6149	0.0000	1.1247	46.8424	58.744
2.20000	41.90100	0.5454	0.0000	1.0742	41.2294	62.788
2.30000	38.45041	0.5170	0.0000	2.0614	45.2494	64.550
2.40000	35.18255	0.4719	0.0000	2.4434	48.0244	68.082
2.50000	32.18344	0.4335	0.0000	2.7722	102.2949	70.100
2.60000	29.44225	0.3944	0.0000	2.6849	105.3741	72.514
2.70000	26.94194	0.3620	0.0000	2.4124	108.1815	74.447
2.80000	24.67154	0.3323	0.0000	2.5424	110.7704	76.231
2.90000	22.60711	0.3045	0.0000	2.6710	113.1327	77.857
3.00000	20.71349	0.2793	0.0000	2.4142	115.2842	79.147
3.10000	19.03304	0.2564	0.0000	2.3424	117.2442	80.715
3.20000	17.48899	0.2356	0.0000	2.1114	119.1101	81.971
3.30000	16.08020	0.2167	0.0000	2.2434	120.7879	83.125
3.40000	14.81721	0.1996	0.0000	2.2144	124.3322	84.184
3.50000	13.66121	0.1840	0.0000	2.1771	121.7551	85.147
3.60000	12.60991	0.1698	0.0000	2.1170	125.0440	86.071
3.70000	11.65295	0.1570	0.0000	2.1012	128.2944	86.905
3.80000	10.78104	0.1452	0.0000	2.0767	127.4514	87.677
3.90000	9.99584	0.1345	0.0000	2.0442	128.4181	88.391
4.00000	9.25490	0.1247	0.0000	2.0034	129.4009	89.053
4.10000	8.56419	0.1154	0.0000	1.9745	130.2932	89.667
4.20000	7.92811	0.1074	0.0000	1.9471	131.1220	90.237
4.30000	7.33325	1.1001	0.0000	1.9212	131.8994	90.764
4.40000	6.77334	0.7231	0.0000	1.8964	132.6102	91.261
4.50000	6.25521	0.7849	0.0000	1.8732	133.2744	91.721
4.60000	5.77502	0.8512	0.0000	1.8500	134.0024	92.151
4.70000	5.32921	0.9214	0.0000	1.8264	134.8440	92.552
4.80000	4.91441	0.9709	0.0000	1.8034	135.7294	92.926
4.90000	4.52847	0.9644	0.0000	1.7804	135.3349	93.277
5.00000	4.18117	0.9622	0.0000	1.7572	134.0140	93.605
5.10000	3.87344	0.9563	0.0000	1.7344	133.6613	93.913
5.20000	3.60621	0.9544	0.0000	1.7114	133.4415	94.202
5.30000	3.37045	0.9515	0.0000	1.6884	133.2772	94.473
5.40000	3.16302	0.9484	0.0000	1.6651	133.0677	94.724
5.50000	2.98144	0.9454	0.0000	1.6414	132.8943	94.964
5.60000	2.82571	0.9429	0.0000	1.6172	132.6644	95.194
5.70000	2.69134	0.9405	0.0000	1.5934	132.4119	95.407
5.80000	2.57374	0.9382	0.0000	1.5704	132.0257	95.604
5.90000	2.47575	0.9360	0.0000	1.5474	131.6201	95.797
6.00000	2.39844	0.9341	0.0000	1.5247	131.1912	95.976
6.10000	2.34104	0.9322	0.0000	1.5014	130.7471	96.145
6.20000	2.29274	0.9305	0.0000	1.4782	130.2937	96.305
6.30000	2.25284	0.9289	0.0000	1.4544	129.8199	96.457
6.40000	2.22071	0.9274	0.0000	1.4311	129.3245	96.601
6.50000	1.92574	0.9259	0.0000	1.4071	128.8063	96.737
6.60000	1.82734	0.9244	0.0000	1.3834	128.2739	96.864
6.70000	1.73517	0.9234	0.0000	1.3599	127.7220	96.984
6.80000	1.64844	0.9222	0.0000	1.3367	127.1511	97.105
6.90000	1.56719	0.9211	0.0000	1.3134	126.5619	97.219

7.00000	1.49104	0.9201	0.0000	1.2902	125.9544	97.321
7.10000	1.41925	0.9191	0.0000	1.2669	125.3263	97.421
7.20000	1.35169	0.9182	0.0000	1.2434	124.6844	97.514
7.30000	1.28804	0.9173	0.0000	1.2200	124.0307	97.607
7.40000	1.22811	0.9165	0.0000	1.1964	123.3655	97.693
7.50000	1.17140	0.9154	0.0000	1.1724	122.6884	97.776
7.60000	1.11827	0.9151	0.0000	1.1484	122.0009	97.855
7.70000	1.06792	0.9144	0.0000	1.1242	121.3032	97.930
7.80000	1.02035	0.9137	0.0000	1.1002	120.5944	98.009
7.90000	0.97514	0.9131	0.0000	1.0764	119.8744	98.070
8.00000	0.93244	0.9124	0.0000	1.0522	119.1444	98.134
8.10000	0.89249	0.9120	0.0000	1.0284	118.4010	98.199
8.20000	0.85447	0.9115	0.0000	1.0040	117.6444	98.259
8.30000	0.81815	0.9110	0.0000	0.9794	116.8744	98.317
8.40000	0.78411	0.9106	0.0000	0.9544	116.0944	98.372
8.50000	0.75144	0.9101	0.0000	0.9294	115.3044	98.424
8.60000	0.72042	0.9097	0.0000	0.9044	114.5044	98.474
8.70000	0.69155	0.9093	0.0000	0.8794	113.6944	98.524
8.80000	0.66374	0.9089	0.0000	0.8544	112.8744	98.574
8.90000	0.63712	0.9084	0.0000	0.8294	112.0444	98.619
9.00000	0.61219	0.9082	0.0000	0.8044	111.2044	98.664
9.10000	0.58824	0.9079	0.0000	0.7794	110.3544	98.709
9.20000	0.56442	0.9076	0.0000	0.7544	109.5044	98.753
9.30000	0.54144	0.9071	0.0000	0.7294	108.6444	98.797
9.40000	0.52031	0.9070	0.0000	0.7044	107.7744	98.841
9.50000	0.50051	0.9068	0.0000	0.6794	106.8944	98.884
9.60000	0.48274	0.9065	0.0000	0.6544	106.0044	98.924
9.70000	0.46641	0.9063	0.0000	0.6294	105.1044	98.964
9.80000	0.44974	0.9061	0.0000	0.6044	104.1944	98.994
9.90000	0.43342	0.9058	0.0000	0.5794	103.2744	99.024
10.00000	0.41741	0.9054	0.0000	0.5544	102.3444	99.054
10.10000	0.40294	0.9054	0.0000	0.5294	101.4044	99.084
10.20000	0.38869	0.9052	0.0000	0.5044	100.4544	99.114
10.30000	0.37507	0.9051	0.0000	0.4794	99.5044	99.144
10.40000	0.36204	0.9049	0.0000	0.4544	98.5444	99.174
10.50000	0.34957	0.9047	0.0000	0.4294	97.5744	99.204
10.60000	0.33763	0.9045	0.0000	0.4044	96.6044	99.234
10.70000	0.32620	0.9044	0.0000	0.3794	95.6244	99.264
10.80000	0.31524	0.9042	0.0000	0.3544	94.6444	99.294
10.90000	0.30473	0.9041	0.0000	0.3294	93.6544	99.324
11.00000	0.29466	0.9040	0.0000	0.3044	92.6644	99.354
11.10000	0.28500	0.9038	0.0000	0.2794	91.6644	99.384
11.20000	0.27574	0.9037	0.0000	0.2544	90.6544	99.414
11.30000	0.26684	0.9036	0.0000	0.2294	89.6444	99.444
11.40000	0.25830	0.9035	0.0000	0.2044	88.6244	99.474
11.50000	0.25010	0.9034	0.0000	0.1794	87.6044	99.504
11.60000	0.24222	0.9033	0.0000	0.1544	86.5744	99.534
11.70000	0.23465	0.9032	0.0000	0.1294	85.5444	99.564
11.80000	0.22734	0.9031	0.0000	0.1044	84.5044	99.594
11.90000	0.22034	0.9030	0.0000	0.0794	83.4644	99.624
12.00000	0.21361	0.9029	0.0000	0.0544	82.4144	99.654





1.50000	77.16280	0.9313	0.0000	4.2350	59.1147	37.272
1.60000	71.02771	0.8413	0.0000	1.2450	44.6474	42.014
1.70000	64.23510	0.8230	0.0000	1.7743	73.7265	44.468
1.80000	61.27245	0.7635	0.0000	1.4457	40.1023	50.612
1.90000	58.36003	0.7041	0.0000	1.4189	46.3423	54.444
2.00000	53.50434	0.6460	0.0000	1.5704	91.9777	57.071
2.10000	49.04874	0.5425	0.0000	1.1179	97.1101	61.204
2.20000	44.89877	0.5414	0.0000	1.1187	101.8074	64.144
2.30000	41.01459	0.4740	0.0000	2.2112	106.1004	66.872
2.40000	37.44734	0.4510	0.0000	2.4131	110.0204	69.383
2.50000	34.18757	0.4124	0.0000	2.7250	113.4002	71.599
2.60000	31.21924	0.3767	0.0000	2.4441	116.8441	73.659
2.70000	28.52204	0.3462	0.0000	2.4699	119.4431	75.540
2.80000	26.07777	0.3147	0.0000	2.5017	122.5411	77.260
2.90000	23.86240	0.2860	0.0000	2.4342	125.0743	78.832
3.00000	21.85624	0.2637	0.0000	2.1804	127.3604	80.279
3.10000	20.03049	0.2414	0.0000	2.1270	129.4539	81.591
3.20000	18.39444	0.2220	0.0000	2.2770	131.3742	82.802
3.30000	16.90380	0.2040	0.0000	2.2304	133.1379	83.913
3.40000	15.55227	0.1877	0.0000	2.1870	134.7594	84.935
3.50000	14.32594	0.1729	0.0000	2.1444	136.2525	85.874
3.60000	13.21227	0.1594	0.0000	2.1044	137.6284	86.744
3.70000	12.19949	0.1472	0.0000	2.0727	138.8944	87.544
3.80000	11.27843	0.1361	0.0000	2.0441	140.0714	88.283
3.90000	10.43039	0.1260	0.0000	2.0074	141.1540	88.967
4.00000	9.64701	0.1167	0.0000	1.9777	142.1419	89.601
4.10000	8.92524	0.1083	0.0000	1.9495	143.0414	90.184
4.20000	8.26441	0.1004	0.0000	1.9229	143.8549	90.733
4.30000	7.65382	0.0934	0.0000	1.8974	144.5829	91.240
4.40000	7.09421	0.0871	0.0000	1.8737	145.2309	91.712
4.50000	6.57449	0.0812	0.0000	1.8509	145.8074	92.151
4.60000	6.09344	0.0757	0.0000	1.8293	146.3173	92.560
4.70000	5.64844	0.0707	0.0000	1.8087	146.7634	92.942
4.80000	5.23700	0.0661	0.0000	1.7891	147.1471	93.299
4.90000	4.85514	0.0614	0.0000	1.7704	147.4690	93.633
5.00000	4.50054	0.0579	0.0000	1.7525	147.7341	93.944
5.10000	4.16979	0.0543	0.0000	1.7354	147.9509	94.239
5.20000	3.86234	0.0510	0.0000	1.7191	148.1170	94.514
5.30000	3.57719	0.0479	0.0000	1.7034	148.2344	94.772
5.40000	3.31294	0.0449	0.0000	1.6884	148.3010	95.014
5.50000	3.06929	0.0423	0.0000	1.6741	148.3129	95.242
5.60000	2.84471	0.0399	0.0000	1.6603	148.2743	95.457
5.70000	2.63744	0.0374	0.0000	1.6470	148.1871	95.659
5.80000	2.44701	0.0354	0.0000	1.6342	148.0544	95.849
5.90000	2.27134	0.0335	0.0000	1.6220	147.8823	96.030
6.00000	2.10921	0.0314	0.0000	1.6101	147.6714	96.200
6.10000	1.96070	0.0299	0.0000	1.5984	147.4244	96.360
6.20000	1.82453	0.0283	0.0000	1.5874	147.1474	96.512
6.30000	1.70047	0.0268	0.0000	1.5772	146.8354	96.654
6.40000	1.58721	0.0254	0.0000	1.5674	146.4914	96.792
6.50000	1.48399	0.0241	0.0000	1.5571	146.1174	96.921
6.60000	1.39040	0.0228	0.0000	1.5474	145.7174	97.041
6.70000	1.30510	0.0217	0.0000	1.5381	145.2947	97.160
6.80000	1.22634	0.0206	0.0000	1.5294	144.8499	97.270
6.90000	1.15204	0.0194	0.0000	1.5204	144.3859	97.375

7.00000	1.08144	0.0184	0.0000	1.5124	143.9040	97.474
7.10000	1.01714	0.0177	0.0000	1.5043	143.4044	97.569
7.20000	0.95704	0.0169	0.0000	1.4964	142.8974	97.659
7.30000	0.90110	0.0161	0.0000	1.4884	142.3840	97.745
7.40000	0.84804	0.0153	0.0000	1.4814	141.8634	97.827
7.50000	0.79814	0.0144	0.0000	1.4742	141.3379	97.905
7.60000	0.75107	0.0139	0.0000	1.4671	140.8074	97.980
7.70000	0.70640	0.0133	0.0000	1.4605	140.2740	98.052
7.80000	0.66361	0.0127	0.0000	1.4539	139.7344	98.119
7.90000	0.62204	0.0122	0.0000	1.4474	139.1894	98.184
8.00000	0.58204	0.0114	0.0000	1.4413	138.6394	98.244
8.10000	0.54314	0.0111	0.0000	1.4351	138.0844	98.305
8.20000	0.50544	0.0104	0.0000	1.4294	137.5244	98.367
8.30000	0.46844	0.0102	0.0000	1.4234	136.9594	98.414
8.40000	0.43301	0.0094	0.0000	1.4181	136.3894	98.460
8.50000	0.39844	0.0084	0.0000	1.4124	135.8144	98.514
8.60000	0.36444	0.0080	0.0000	1.4071	135.2344	98.566
8.70000	0.33127	0.0074	0.0000	1.4021	134.6494	98.612
8.80000	0.29847	0.0069	0.0000	1.3971	134.0594	98.654
8.90000	0.26647	0.0064	0.0000	1.3922	133.4644	98.699
9.00000	0.23512	0.0057	0.0000	1.3874	132.8644	98.739
9.10000	0.20444	0.0053	0.0000	1.3827	132.2594	98.774
9.20000	0.17427	0.0049	0.0000	1.3781	131.6494	98.814
9.30000	0.14447	0.0044	0.0000	1.3737	131.0344	98.852
9.40000	0.11504	0.0040	0.0000	1.3693	130.4144	98.884
9.50000	0.08544	0.0036	0.0000	1.3650	129.7894	98.920
9.60000	0.05647	0.0034	0.0000	1.3604	129.1594	98.952
9.70000	0.02741	0.0034	0.0000	1.3564	128.5244	98.983
9.80000	0.00444	0.0034	0.0000	1.3524	127.8844	99.017
9.90000	0.00000	0.0034	0.0000	1.3489	127.2394	99.041
10.00000	0.00000	0.0032	0.0000	1.3451	126.5894	99.069
10.10000	0.00000	0.0030	0.0000	1.3414	125.9344	99.095
10.20000	0.00000	0.0028	0.0000	1.3377	125.2744	99.121
10.30000	0.00000	0.0027	0.0000	1.3341	124.6144	99.146
10.40000	0.00000	0.0025	0.0000	1.3304	123.9544	99.170
10.50000	0.00000	0.0023	0.0000	1.3272	123.2894	99.193
10.60000	0.00000	0.0022	0.0000	1.3239	122.6194	99.215
10.70000	0.00000	0.0021	0.0000	1.3204	121.9494	99.237
10.80000	0.00000	0.0020	0.0000	1.3173	121.2744	99.259
10.90000	0.00000	0.0019	0.0000	1.3142	120.5994	99.278
11.00000	0.00000	0.0017	0.0000	1.3111	119.9244	99.297
11.10000	0.00000	0.0016	0.0000	1.3080	119.2494	99.314
11.20000	0.00000	0.0014	0.0000	1.3051	118.5744	99.334
11.30000	0.00000	0.0013	0.0000	1.3021	117.8994	99.352
11.40000	0.00000	0.0012	0.0000	1.2993	117.2194	99.369
11.50000	0.00000	0.0011	0.0000	1.2964	116.5394	99.385
11.60000	0.00000	0.0010	0.0000	1.2937	115.8594	99.401
11.70000	0.00000	0.0009	0.0000	1.2910	115.1794	99.414
11.80000	0.00000	0.0008	0.0000	1.2883	114.4994	99.431
11.90000	0.00000	0.0007	0.0000	1.2857	113.8194	99.446
12.00000	0.00000	0.0007	0.0000	1.2831	113.1394	99.460

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2350.0  
DEGREES FAHRENHEIT = 3770.2

THE POWER RADIATED FROM 0.90 TO 0.75 MICRON IS 6.05 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 0.00,49 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 205.00 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.035 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 194.490 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 5.372 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.2332 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.5560 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 172.01 WATT/CM<sup>2</sup> OR 1.720100000 ERG/SEC/CM<sup>2</sup> OR 4.512700002 FLUX/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 92.28 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA:  $\Delta E/E = N \Delta T/T$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2350.0  
DEGREES FAHRENHEIT = 3770.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT N FOR WATON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.18074	0.0020	0.0000	17.4494	0.0043	0.002
0.35500	0.21510	0.0021	0.0000	17.2430	0.0053	0.003
0.36000	0.25510	0.0024	0.0000	17.0035	0.0064	0.004
0.36500	0.30000	0.0033	0.0000	16.7706	0.0079	0.005
0.37000	0.35234	0.0048	0.0000	16.5440	0.0095	0.005
0.37500	0.41074	0.0065	0.0000	16.3234	0.0114	0.007
0.38000	0.47457	0.0082	0.0000	16.1086	0.0136	0.008
0.38500	0.54300	0.0096	0.0000	15.8996	0.0162	0.009
0.39000	0.61624	0.0099	0.0000	15.6954	0.0191	0.011
0.39500	0.69394	0.0078	0.0000	15.4969	0.0225	0.013
0.40000	0.77514	0.0080	0.0000	15.3032	0.0264	0.015
0.40500	0.85973	0.0102	0.0006	15.1143	0.0308	0.018
0.41000	1.04910	0.0115	0.0044	14.9299	0.0358	0.021
0.41500	1.10340	0.0129	1.7455	14.7501	0.0414	0.024
0.42000	1.33900	0.0145	5.4445	14.5745	0.0477	0.028
0.42500	1.40913	0.0162	7.4417	14.4030	0.0548	0.032
0.43000	1.47177	0.0181	13.1069	14.2355	0.0627	0.036
0.43500	1.54438	0.0201	21.2302	14.0710	0.0714	0.041
0.44000	2.05952	0.0223	37.2108	13.9120	0.0814	0.047
0.44500	2.27570	0.0247	44.8760	13.7557	0.0922	0.053
0.45000	2.50744	0.0272	44.7023	13.6020	0.1041	0.060
0.45500	2.75521	0.0299	89.0302	13.4534	0.1173	0.068
0.46000	3.01947	0.0327	123.1945	13.3071	0.1317	0.074
0.46500	3.30004	0.0358	160.0080	13.1641	0.1475	0.080
0.47000	3.59009	0.0390	222.7119	13.0240	0.1648	0.089
0.47500	3.91520	0.0424	290.1914	12.8869	0.1835	0.100
0.48000	4.24024	0.0461	401.6417	12.7527	0.2039	0.110
0.48500	4.61161	0.0499	524.8169	12.6212	0.2261	0.121
0.49000	4.97204	0.0539	703.3024	12.4924	0.2500	0.135
0.49500	5.36200	0.0581	940.7005	12.3661	0.2758	0.160
0.50000	5.77081	0.0625	1247.4140	12.2426	0.3036	0.176
0.50500	6.19749	0.0672	1715.3292	12.1214	0.3335	0.193
0.51000	6.64447	0.0720	2272.6757	12.0024	0.3656	0.211
0.51500	7.11093	0.0771	2939.4531	11.8841	0.4000	0.231
0.52000	7.59514	0.0823	3664.0534	11.7710	0.4368	0.253
0.52500	8.09931	0.0878	4367.4721	11.6597	0.4760	0.275
0.53000	8.62254	0.0934	5054.2006	11.5497	0.5179	0.299
0.53500	9.16484	0.0993	5792.3641	11.4414	0.5623	0.325
0.54000	9.72602	0.1054	6599.4645	11.3350	0.6095	0.352
0.54500	10.30594	0.1117	6867.0760	11.2314	0.6596	0.381
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THE SPECIAL ASSIGNMENT (FIGURE 4) IS THE PART OF THE WORK WHICH DEALS WITH THE FIRST QUESTION: IS THERE A SIGNIFICANT DIFFERENCE IN THE NUMBER OF PERSONS WITH A HISTORY OF ALCOHOLISM IN DIFFERENT POLICE DEPARTMENTS?

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0.06500	58.01000	0.06500	0.00000	0.00000	20.00000	21.500
0.06600	59.01000	0.06600	0.00000	0.00000	20.00000	22.000
0.06700	60.01000	0.06700	0.00000	0.00000	20.00000	22.500
0.06800	61.01000	0.06800	0.00000	0.00000	20.00000	23.000
0.06900	62.01000	0.06900	0.00000	0.00000	20.00000	23.500
0.07000	63.01000	0.07000	0.00000	0.00000	20.00000	24.000
0.07100	64.01000	0.07100	0.00000	0.00000	20.00000	24.500
0.07200	65.01000	0.07200	0.00000	0.00000	20.00000	25.000
0.07300	66.01000	0.07300	0.00000	0.00000	20.00000	25.500
0.07400	67.01000	0.07400	0.00000	0.00000	20.00000	26.000
0.07500	68.01000	0.07500	0.00000	0.00000	20.00000	26.500
0.07600	69.01000	0.07600	0.00000	0.00000	20.00000	27.000
0.07700	70.01000	0.07700	0.00000	0.00000	20.00000	27.500
0.07800	71.01000	0.07800	0.00000	0.00000	20.00000	28.000
0.07900	72.01000	0.07900	0.00000	0.00000	20.00000	28.500
0.08000	73.01000	0.08000	0.00000	0.00000	20.00000	29.000
0.08100	74.01000	0.08100	0.00000	0.00000	20.00000	29.500
0.08200	75.01000	0.08200	0.00000	0.00000	20.00000	30.000
0.08300	76.01000	0.08300	0.00000	0.00000	20.00000	30.500
0.08400	77.01000	0.08400	0.00000	0.00000	20.00000	31.000
0.08500	78.01000	0.08500	0.00000	0.00000	20.00000	31.500
0.08600	79.01000	0.08600	0.00000	0.00000	20.00000	32.000
0.08700	80.01000	0.08700	0.00000	0.00000	20.00000	32.500
0.08800	81.01000	0.08800	0.00000	0.00000	20.00000	33.000
0.08900	82.01000	0.08900	0.00000	0.00000	20.00000	33.500
0.09000	83.01000	0.09000	0.00000	0.00000	20.00000	34.000

1,00000	07,00000	0,00000	0,00000	07,00000	00,0000
1,00000	06,99999	0,00000	0,00000	06,99999	00,0001
1,00000	06,99998	0,00000	0,00000	06,99998	00,0002
1,00000	06,99997	0,00000	0,00000	06,99997	00,0003
1,00000	06,99996	0,00000	0,00000	06,99996	00,0004
1,00000	06,99995	0,00000	0,00000	06,99995	00,0005
1,00000	06,99994	0,00000	0,00000	06,99994	00,0006
1,00000	06,99993	0,00000	0,00000	06,99993	00,0007
1,00000	06,99992	0,00000	0,00000	06,99992	00,0008
1,00000	06,99991	0,00000	0,00000	06,99991	00,0009
1,00000	06,99990	0,00000	0,00000	06,99990	00,0010
1,00000	06,99989	0,00000	0,00000	06,99989	00,0011
1,00000	06,99988	0,00000	0,00000	06,99988	00,0012
1,00000	06,99987	0,00000	0,00000	06,99987	00,0013
1,00000	06,99986	0,00000	0,00000	06,99986	00,0014
1,00000	06,99985	0,00000	0,00000	06,99985	00,0015
1,00000	06,99984	0,00000	0,00000	06,99984	00,0016
1,00000	06,99983	0,00000	0,00000	06,99983	00,0017
1,00000	06,99982	0,00000	0,00000	06,99982	00,0018
1,00000	06,99981	0,00000	0,00000	06,99981	00,0019
1,00000	06,99980	0,00000	0,00000	06,99980	00,0020
1,00000	06,99979	0,00000	0,00000	06,99979	00,0021
1,00000	06,99978	0,00000	0,00000	06,99978	00,0022
1,00000	06,99977	0,00000	0,00000	06,99977	00,0023
1,00000	06,99976	0,00000	0,00000	06,99976	00,0024
1,00000	06,99975	0,00000	0,00000	06,99975	00,0025
1,00000	06,99974	0,00000	0,00000	06,99974	00,0026
1,00000	06,99973	0,00000	0,00000	06,99973	00,0027
1,00000	06,99972	0,00000	0,00000	06,99972	00,0028
1,00000	06,99971	0,00000	0,00000	06,99971	00,0029
1,00000	06,99970	0,00000	0,00000	06,99970	00,0030
1,00000	06,99969	0,00000	0,00000	06,99969	00,0031
1,00000	06,99968	0,00000	0,00000	06,99968	00,0032
1,00000	06,99967	0,00000	0,00000	06,99967	00,0033
1,00000	06,99966	0,00000	0,00000	06,99966	00,0034
1,00000	06,99965	0,00000	0,00000	06,99965	00,0035
1,00000	06,99964	0,00000	0,00000	06,99964	00,0036
1,00000	06,99963	0,00000	0,00000	06,99963	00,0037
1,00000	06,99962	0,00000	0,00000	06,99962	00,0038
1,00000	06,99961	0,00000	0,00000	06,99961	00,0039
1,00000	06,99960	0,00000	0,00000	06,99960	00,0040
1,00000	06,99959	0,00000	0,00000	06,99959	00,0041
1,00000	06,99958	0,00000	0,00000	06,99958	00,0042
1,00000	06,99957	0,00000	0,00000	06,99957	00,0043
1,00000	06,99956	0,00000	0,00000	06,99956	00,0044
1,00000	06,99955	0,00000	0,00000	06,99955	00,0045
1,00000	06,99954	0,00000	0,00000	06,99954	00,0046
1,00000	06,99953	0,00000	0,00000	06,99953	00,0047
1,00000	06,99952	0,00000	0,00000	06,99952	00,0048
1,00000	06,99951	0,00000	0,00000	06,99951	00,0049
1,00000	06,99950	0,00000	0,00000	06,99950	00,0050
1,00000	06,99949	0,00000	0,00000	06,99	



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0.94900	100.26795	0.99271	0.00000	0.19331	25.86441	12.968
0.96000	101.18763	0.99420	0.00000	0.12564	26.47245	13.059
0.97000	102.04616	0.99431	0.00000	0.06717	27.06976	13.590
0.98000	102.84332	0.99427	0.00000	0.03061	28.72293	14.066
0.99000	103.58865	0.99418	0.00000	0.01605	29.77114	14.578
1.00000	104.29169	0.99406	0.00000	0.00807	30.73668	15.000
1.01000	104.95264	0.99391	0.00000	0.00400	31.64860	15.600
1.02000	105.58150	0.99376	0.00000	0.00204	32.50717	16.133
1.03000	106.18774	0.99362	0.00000	0.00109	33.01469	16.667
1.04000	106.77150	0.99349	0.00000	0.00054	33.12224	17.193
1.05000	107.33284	0.99336	0.00000	0.00028	33.01590	17.720
1.06000	107.87197	0.99324	0.00000	0.00014	32.71447	18.267
1.07000	108.38902	0.99313	0.00000	0.00007	32.42114	18.808
1.08000	108.88408	0.99302	0.00000	0.00003	32.13601	19.352
1.09000	109.35724	0.99292	0.00000	0.00001	31.85918	19.898
1.10000	109.80859	0.99282	0.00000	0.00000	31.59072	20.467
1.11000	110.23812	0.99272	0.00000	0.00000	31.33077	21.568
1.12000	110.64582	0.99262	0.00000	0.00000	31.08018	22.191
1.13000	111.03167	0.99252	0.00000	0.00000	30.83904	22.955
1.14000	111.39567	0.99242	0.00000	0.00000	30.60745	23.766
1.15000	111.73782	0.99232	0.00000	0.00000	30.38541	24.622
1.16000	112.05812	0.99222	0.00000	0.00000	30.17292	25.531
1.17000	112.35657	0.99212	0.00000	0.00000	29.96998	26.494
1.18000	112.63317	0.99202	0.00000	0.00000	29.77659	27.520
1.19000	112.88792	0.99192	0.00000	0.00000	29.59276	28.611
1.20000	113.12082	0.99182	0.00000	0.00000	29.41849	29.768
1.21000	113.33187	0.99172	0.00000	0.00000	29.25378	30.992
1.22000	113.52107	0.99162	0.00000	0.00000	29.09853	31.508
1.23000	113.68842	0.99152	0.00000	0.00000	28.95274	32.052
1.24000	113.83392	0.99142	0.00000	0.00000	28.81641	32.596
1.25000	113.95747	0.99132	0.00000	0.00000	28.68954	33.133
1.26000	114.05907	0.99122	0.00000	0.00000	28.57213	33.671
1.27000	114.13872	0.99112	0.00000	0.00000	28.46418	34.207
1.28000	114.19642	0.99102	0.00000	0.00000	28.36569	34.740
1.29000	114.23207	0.99092	0.00000	0.00000	28.27666	35.271
1.30000	114.24667	0.99082	0.00000	0.00000	28.19709	35.799
1.31000	114.24022	0.99072	0.00000	0.00000	28.12698	36.325
1.32000	114.21272	0.99062	0.00000	0.00000	28.06633	36.847
1.33000	114.16427	0.99052	0.00000	0.00000	28.01514	37.364
1.34000	114.09487	0.99042	0.00000	0.00000	27.97341	37.885
1.35000	114.00452	0.99032	0.00000	0.00000	27.94114	38.400
1.36000	113.89322	0.99022	0.00000	0.00000	27.91833	38.911
1.37000	113.76097	0.99012	0.00000	0.00000	27.90498	39.419
1.38000	113.60767	0.99002	0.00000	0.00000	27.89919	39.925
1.39000	113.43332	0.98992	0.00000	0.00000	27.90090	40.4

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THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2276.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2550.0  
DEGREES FAHRENHEIT = 4130.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 12.83 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 2185.22 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 682.84 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.058 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 167.210 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.949 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.1365 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.4322 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 239.73 WATT/CM<sup>2</sup> OR 2.39729E+09 FNU/SEC/CM<sup>2</sup> OR 5.72944E+09 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 135.42 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, AND LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: % = M \* ΔT / T

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2276.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2550.0  
DEGREES FAHRENHEIT = 4130.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR KIRKBY	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	0.71250	0.0051	0.0000	14.1174	0.0187	0.008
0.35500	0.73284	0.0060	0.0000	14.8904	0.0224	0.009
0.36000	0.74819	0.0070	0.0000	15.6649	0.0271	0.011
0.36500	1.12027	0.0081	0.0000	15.4353	0.0323	0.013
0.37000	1.24892	0.0093	0.0000	15.2444	0.0383	0.016
0.37500	1.47782	0.0106	0.0000	15.0431	0.0452	0.019
0.38000	1.68587	0.0121	0.0000	14.8452	0.0531	0.022
0.38500	1.91494	0.0138	0.0000	14.6524	0.0621	0.024
0.39000	2.16614	0.0156	0.0000	14.4646	0.0723	0.030
0.39500	2.44110	0.0174	0.0000	14.2815	0.0838	0.035
0.40000	2.74012	0.0197	0.7454	14.1030	0.0969	0.040
0.40500	3.06507	0.0221	1.6674	13.9248	0.1113	0.046
0.41000	3.41619	0.0246	2.7874	13.7500	0.1277	0.053
0.41500	3.79524	0.0273	4.1777	13.5732	0.1455	0.061
0.42000	4.20255	0.0303	11.4309	13.4014	0.1655	0.069
0.42500	4.63917	0.0336	21.0244	13.2334	0.1876	0.078
0.43000	5.10500	0.0374	40.2753	13.0693	0.2119	0.088
0.43500	5.60327	0.0416	64.0141	12.9083	0.2387	0.100
0.44000	6.13254	0.0462	95.0130	12.7500	0.2680	0.112
0.44500	6.69370	0.0512	131.9999	12.5948	0.3001	0.125
0.45000	7.28745	0.0565	184.3074	12.5440	0.3350	0.140
0.45500	7.91494	0.0620	258.1204	12.4982	0.3730	0.156
0.46000	8.57647	0.0678	349.4356	12.4565	0.4147	0.173
0.46500	9.26221	0.0738	464.3772	12.4184	0.4598	0.191
0.47000	9.98401	0.0799	618.4464	12.3826	0.5089	0.211
0.47500	10.74284	0.0875	819.2951	12.3482	0.5598	0.233
0.48000	11.53920	0.0959	1062.0044	12.3152	0.6144	0.254
0.48500	12.37280	0.1049	1423.0119	12.2844	0.6744	0.281
0.49000	13.24462	0.1145	1873.5444	12.2557	0.7395	0.308
0.49500	14.15412	0.1247	2481.1019	12.2290	0.8098	0.337
0.50000	15.10137	0.1354	3310.7994	12.2042	0.8799	0.367
0.50500	16.08372	0.1466	4434.4577	12.1808	0.9477	0.399
0.51000	17.10132	0.1582	5824.0547	12.1583	1.0094	0.434
0.51500	18.15412	0.1701	7447.3147	12.1368	1.1241	0.471
0.52000	19.24115	0.1824	9231.4991	12.1164	1.2210	0.509
0.52500	20.36141	0.1951	10899.0292	12.0971	1.3144	0.550
0.53000	21.51320	0.2082	12904.4127	12.0788	1.4042	0.594
0.53500	22.69512	0.2217	15389.1201	12.0614	1.4907	0.639
0.54000	23.90621	0.2356	18350.4104	12.0449	1.5741	0.687
0.54500	25.14644	0.2499	21857.2732	12.0291	1.6544	0.738
0.55000	26.41614	0.2646	25962.0854	12.0140	1.7318	0.791
0.55500	27.71444	0.2797	30607.0629	12.0007	2.0305	0.847
0.56000	29.04033	0.2954	35944.4123	12.0000	2.1705	0.905
0.56500	29.94022	0.3116	39945.1153	12.0000	2.3170	0.967
0.57000	31.29320	0.3284	42958.0256	12.0000	2.4702	1.030





VISIBILITY AND OTHER DATA FOR PLANK RADIATOR, MECHANICS DIVISION, D.W.L. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2326.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2600.0  
DEGREES FAHRENHEIT = 4220.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 15.23 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 2573.14 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 825.42 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.099.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 170.242 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 10.030 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.1146 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.4044 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 259.09 WATT/CM<sup>2</sup> OR 2.590920E+09 PHOT/SEC/CM<sup>2</sup> OR 4.19244E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 192.97 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, WATTS PER WATT X RADIANT EMITTANCE X VISIBILITY FACTOR, WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGES IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: W = W<sub>0</sub> X 10<sup>N</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2326.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2600.0  
DEGREES FAHRENHEIT = 4220.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPOINENT N FOR WATTM	POWER FROM ZERO TO L	% TOTAL POWER FROM TO L
0.35000	0.97140	0.5044	0.0000	15.4077	0.0241	0.010
0.35500	1.11054	0.5074	0.0000	15.4451	0.0314	0.012
0.36000	1.30875	0.5094	0.0000	15.4864	0.0375	0.016
0.36500	1.56801	0.5099	0.0000	15.5311	0.0445	0.017
0.37000	1.72912	0.5113	0.0000	15.5732	0.0526	0.020
0.37500	1.87360	0.5129	0.0000	15.6139	0.0618	0.024
0.38000	2.00280	0.5147	0.0000	15.6537	0.0724	0.029
0.38500	2.13822	0.5164	0.0000	15.6924	0.0843	0.033
0.39000	2.26112	0.5187	0.0000	15.7294	0.0974	0.034
0.39500	2.37244	0.5210	0.0000	15.7644	0.1113	0.044
0.40000	2.46144	0.5234	0.0000	15.7977	0.1260	0.050
0.40500	2.53844	0.5262	2.1794	15.8294	0.1409	0.057
0.41000	2.60123	0.5291	3.4225	15.8594	0.1561	0.064
0.41500	2.65012	0.5322	5.1739	15.8875	0.1715	0.075
0.42000	2.68411	0.5354	7.7909	15.9131	0.2105	0.085
0.42500	2.70421	0.5391	10.7255	15.9361	0.2440	0.094
0.43000	2.71113	0.5430	14.8331	15.9564	0.2704	0.104
0.43500	2.70661	0.5470	20.1454	15.9740	0.3134	0.121
0.44000	2.69127	0.5513	27.7112	15.9884	0.3514	0.134
0.44500	2.66143	0.5558	38.6410	15.9994	0.3923	0.151
0.45000	2.61815	0.5604	53.9440	16.0064	0.4344	0.169
0.45500	2.56114	0.5657	75.7740	16.0094	0.4851	0.187
0.46000	2.49441	0.5710	105.2804	16.0077	0.5374	0.207
0.46500	2.417034	0.5764	145.8230	16.0014	0.5917	0.229
0.47000	2.329115	0.5823	200.1406	16.0014	0.6465	0.251
0.47500	2.231767	0.5884	275.4044	16.0014	0.7107	0.278
0.48000	2.124294	0.5947	380.9204	16.0014	0.7807	0.305
0.48500	2.00661	0.6012	520.7440	16.0014	0.8564	0.334
0.49000	1.87894	0.6081	710.8331	16.0014	0.9384	0.365
0.49500	1.740891	0.6151	970.1071	16.0014	1.0260	0.399
0.50000	1.592424	0.6224	1311.0348	16.0014	1.1200	0.433
0.50500	1.434041	0.6300	1750.1011	16.0014	1.2173	0.470
0.51000	1.267074	0.6377	2397.0174	16.0014	1.3197	0.509
0.51500	1.092654	0.6454	3320.2704	16.0014	1.4264	0.551
0.52000	0.912700	0.6534	4673.1100	16.0014	1.5377	0.595
0.52500	0.728129	0.6617	6540.8107	16.0014	1.6537	0.642
0.53000	0.540449	0.6701	9144.7444	16.0014	1.7744	0.691
0.53500	0.350164	0.6780	12633.9170	16.0014	1.8994	0.741
0.54000	0.157749	0.6861	17785.9731	16.0014	2.0287	0.790
0.54500	0.063454	0.6944	25223.4114	16.0014	2.1610	0.845
0.55000	0.027620	0.7029	35113.3111	16.0014	2.2972	0.915
0.55500	0.012727	0.7117	48625.2124	16.0014	2.4370	0.974
0.56000	0.005440	0.7204	67147.6923	16.0014	2.5800	1.041
0.56500	0.002451	0.7294	92147.3222	16.0014	2.7260	1.112
0.57000	0.001141	0.7384	125504.1440	16.0014	2.8740	1.183



1.50000	126.35577	0.0260	0.0000	3.7831	119.9090	44.281
1.00000	114.00211	0.7583	0.0000	3.5704	134.0278	50.959
1.70000	105.76899	0.6918	0.0000	3.1852	142.1137	55.217
1.00000	95.90167	0.6275	0.0000	3.2274	152.1049	59.174
1.00000	86.85591	0.5678	0.0000	3.0794	162.3335	62.655
2.00000	78.44742	0.5128	0.0000	2.9520	170.5925	65.841
2.10000	70.78931	0.4628	0.0000	2.8483	178.0481	68.720
2.20000	63.66331	0.4175	0.0000	2.7481	184.7748	71.316
2.30000	57.63820	0.3767	0.0000	2.6491	190.8619	73.659
2.40000	52.03877	0.3405	0.0000	2.5607	196.3222	75.773
2.50000	47.03294	0.3075	0.0000	2.4844	201.2711	77.681
2.60000	42.54649	0.2789	0.0000	2.4154	205.7644	79.411
2.70000	38.55519	0.2520	0.0000	2.3522	209.7983	80.975
2.80000	34.97637	0.2287	0.0000	2.2940	213.4714	82.392
2.90000	31.77954	0.2077	0.0000	2.2403	216.8045	83.679
3.00000	28.91664	0.1890	0.0000	2.1907	219.8387	84.850
3.10000	26.35199	0.1723	0.0000	2.1447	222.5994	85.915
3.20000	24.05171	0.1572	0.0000	2.1020	225.1179	86.887
3.30000	21.94620	0.1437	0.0000	2.0622	227.4140	87.775
3.40000	20.12800	0.1316	0.0000	2.0251	229.5221	88.587
3.50000	18.45650	0.1207	0.0000	1.9904	231.4499	89.331
3.60000	16.94841	0.1108	0.0000	1.9579	233.2149	90.014
3.70000	15.54667	0.1019	0.0000	1.9274	234.8445	90.641
3.80000	14.23570	0.0936	0.0000	1.8987	236.3695	91.219
3.90000	13.23900	0.0865	0.0000	1.8717	237.7993	91.751
4.00000	12.27491	0.0799	0.0000	1.8462	239.0917	92.242
4.10000	11.30747	0.0739	0.0000	1.8221	240.2677	92.694
4.20000	10.47097	0.0685	0.0000	1.7992	241.2540	93.114
4.30000	9.70881	0.0635	0.0000	1.7774	242.0844	93.505
4.40000	9.01345	0.0589	0.0000	1.7571	242.7000	93.864
4.50000	8.37811	0.0548	0.0000	1.7374	243.1691	94.202
4.60000	7.79685	0.0510	0.0000	1.7191	243.4774	94.514
4.70000	7.26425	0.0475	0.0000	1.7015	243.6431	94.804
4.80000	6.77569	0.0443	0.0000	1.6847	243.6817	95.075
4.90000	6.32493	0.0414	0.0000	1.6684	243.5945	95.329
5.00000	5.91421	0.0387	0.0000	1.6533	243.3943	95.564
5.10000	5.53614	0.0362	0.0000	1.6394	243.0975	95.785
5.20000	5.18175	0.0339	0.0000	1.6264	242.7041	95.992
5.30000	4.84633	0.0318	0.0000	1.6142	242.2041	96.185
5.40000	4.54145	0.0298	0.0000	1.6028	241.6990	96.367
5.50000	4.26694	0.0280	0.0000	1.5920	241.1912	96.538
5.60000	4.02443	0.0263	0.0000	1.5816	240.6817	96.694
5.70000	3.79141	0.0248	0.0000	1.5716	240.1724	96.844
5.80000	3.57107	0.0233	0.0000	1.5617	239.6645	96.991
5.90000	3.36634	0.0220	0.0000	1.5511	239.1643	97.129
6.00000	3.17595	0.0208	0.0000	1.5409	238.6693	97.251
6.10000	2.99872	0.0196	0.0000	1.5311	238.1779	97.370
6.20000	2.83358	0.0185	0.0000	1.5217	237.6894	97.483
6.30000	2.67944	0.0175	0.0000	1.5124	237.2040	97.589
6.40000	2.53579	0.0164	0.0000	1.5034	236.7214	97.690
6.50000	2.40144	0.0157	0.0000	1.4945	236.2425	97.785
6.60000	2.27585	0.0149	0.0000	1.4857	235.7661	97.875
6.70000	2.15829	0.0141	0.0000	1.4771	235.2929	97.961
6.80000	2.04817	0.0134	0.0000	1.4684	234.8214	98.042
6.90000	1.94494	0.0127	0.0000	1.4590	234.3514	98.119

7.00000	1.84810	0.0121	0.0000	1.4497	233.8824	98.199
7.10000	1.75717	0.0115	0.0000	1.4407	233.4147	98.262
7.20000	1.67174	0.0109	0.0000	1.4319	232.9490	98.324
7.30000	1.59140	0.0104	0.0000	1.4234	232.4851	98.381
7.40000	1.51581	0.0099	0.0000	1.4150	232.0221	98.431
7.50000	1.44443	0.0094	0.0000	1.4068	231.5604	98.478
7.60000	1.37754	0.0090	0.0000	1.4007	231.1004	98.522
7.70000	1.31432	0.0086	0.0000	1.4019	230.6419	98.564
7.80000	1.25465	0.0082	0.0000	1.3962	230.1852	98.604
7.90000	1.19831	0.0078	0.0000	1.3907	229.7301	98.641
8.00000	1.14509	0.0075	0.0000	1.3853	229.2762	98.675
8.10000	1.09477	0.0072	0.0000	1.3801	228.8240	98.709
8.20000	1.04717	0.0068	0.0000	1.3750	228.3731	98.741
8.30000	1.00212	0.0066	0.0000	1.3701	227.9237	98.770
8.40000	0.95948	0.0063	0.0000	1.3652	227.4757	98.798
8.50000	0.91904	0.0060	0.0000	1.3605	227.0297	98.824
8.60000	0.88072	0.0058	0.0000	1.3559	226.5854	98.849
8.70000	0.84434	0.0055	0.0000	1.3514	226.1427	98.872
8.80000	0.80984	0.0053	0.0000	1.3471	225.7014	98.894
8.90000	0.77709	0.0051	0.0000	1.3428	225.2614	98.915
9.00000	0.74594	0.0049	0.0000	1.3387	224.8224	98.934
9.10000	0.71637	0.0047	0.0000	1.3344	224.3844	98.951
9.20000	0.68827	0.0045	0.0000	1.3304	223.9474	98.967
9.30000	0.66144	0.0043	0.0000	1.3264	223.5114	98.981
9.40000	0.63594	0.0042	0.0000	1.3226	223.0764	98.994
9.50000	0.61167	0.0040	0.0000	1.3191	222.6424	99.006
9.60000	0.58853	0.0039	0.0000	1.3157	222.2094	99.017
9.70000	0.56647	0.0037	0.0000	1.3122	221.7774	99.027
9.80000	0.54544	0.0036	0.0000	1.3087	221.3464	99.037
9.90000	0.52534	0.0034	0.0000	1.3053	220.9164	99.046
10.00000	0.50621	0.0033	0.0000	1.3020	220.4874	99.054
10.10000	0.48791	0.0032	0.0000	1.2984	220.0594	99.061
10.20000	0.47043	0.0031	0.0000	1.2954	219.6324	99.068
10.30000	0.45371	0.0030	0.0000	1.2924	219.2064	99.074
10.40000	0.43775	0.0029	0.0000	1.2894	218.7814	99.079
10.50000	0.42244	0.0028	0.0000	1.2865	218.3574	99.084
10.60000	0.40744	0.0027	0.0000	1.2834	217.9344	99.089
10.70000	0.39267	0.0026	0.0000	1.2807	217.5124	99.094
10.80000	0.37807	0.0025	0.0000	1.2779	217.0914	99.099
10.90000	0.36363	0.0024	0.0000	1.2752	216.6714	99.104
11.00000	0.34933	0.0023	0.0000	1.2725	216.2524	99.109
11.10000	0.33514	0.0022	0.0000	1.2698	215.8344	99.114
11.20000	0.32124	0.0022	0.0000	1.2672	215.4174	99.119
11.30000	0.30754	0.0021	0.0000	1.2647	214.9994	99.124
11.40000	0.29404	0.0020	0.0000	1.2622	214.5824	99.129
11.50000	0.28074	0.0020	0.0000	1.2598	214.1664	99.134
11.60000	0.26764	0.0019	0.0000	1.2574	213.7514	99.139
11.70000	0.25474	0.0018	0.0000	1.2550	213.3374	99.144
11.80000	0.24204	0.0018	0.0000	1.2527	212.9244	99.149
11.90000	0.22954	0.0017	0.0000	1.2504	212.5124	99.154
12.00000	0.21814	0.0017	0.0000	1.2482	212.1014	99.159

VISIBILITY AND OTHER DATA FOR PLANAR RADIATION, MECHANICS DIVISION, U.S. AIR FORCE, UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2176.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2450.0  
DEGREES FAHRENHEIT = 4310.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 17.97 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 3112.74 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 990.93 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.044 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 175.181 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 11.131 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0236 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.3781 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 279.60 WATT/CM<sup>2</sup> OR 2,700,000,000 ERG/SEC/CM<sup>2</sup> OR 4.442/CM<sup>2</sup> KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 149.26 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHEN RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: W = K/T<sup>N</sup> ,

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2374.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2650.0  
DEGREES FAHRENHEIT = 4310.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT N FOR K/T <sup>N</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	1.30894	0.0074	1.0000	15.4094	0.0340	0.013
0.35500	1.51703	0.0090	0.0000	15.2910	0.0431	0.015
0.36000	1.74027	0.0104	0.0000	15.0784	0.0513	0.019
0.36500	2.00730	0.0119	0.0000	14.8721	0.0606	0.022
0.37000	2.29271	0.0134	0.0000	14.6711	0.0714	0.024
0.37500	2.60709	0.0155	0.0000	14.4755	0.0836	0.030
0.38000	2.95194	0.0175	0.0000	14.2850	0.0974	0.035
0.38500	3.32844	0.0198	0.0000	14.0995	0.1132	0.040
0.39000	3.73923	0.0229	0.0000	13.9187	0.1308	0.047
0.39500	4.18444	0.0249	0.0000	13.7426	0.1496	0.054
0.40000	4.66490	0.0277	1.2491	13.5708	0.1727	0.062
0.40500	5.18457	0.0308	2.8204	13.4032	0.1974	0.071
0.41000	5.74101	0.0341	4.4954	13.2399	0.2247	0.080
0.41500	6.33847	0.0377	6.4829	13.0801	0.2548	0.091
0.42000	6.97463	0.0415	10.0759	12.9244	0.2881	0.101
0.42500	7.65564	0.0455	16.0017	12.7724	0.3247	0.114
0.43000	8.37673	0.0498	24.0755	12.6240	0.3647	0.130
0.43500	9.14086	0.0543	36.4252	12.4789	0.4085	0.146
0.44000	9.94845	0.0591	55.5938	12.3371	0.4562	0.161
0.44500	10.79992	0.0642	82.0744	12.1984	0.5081	0.182
0.45000	11.69554	0.0695	102.2137	12.0630	0.5643	0.202
0.45500	12.63564	0.0751	125.4274	11.9304	0.6251	0.224
0.46000	13.62021	0.0809	155.7064	11.8007	0.6907	0.247
0.46500	14.64924	0.0871	197.1509	11.6739	0.7614	0.272
0.47000	15.72267	0.0934	252.9189	11.5497	0.8373	0.299
0.47500	16.84020	0.1001	328.5497	11.4281	0.9187	0.329
0.48000	18.00151	0.1070	430.4025	11.3091	1.0054	0.360
0.48500	19.20615	0.1141	567.1704	11.1929	1.0984	0.393
0.49000	20.45557	0.1216	749.0529	11.0783	1.1979	0.424
0.49500	21.74814	0.1295	981.4154	10.9654	1.3034	0.464
0.50000	23.07411	0.1371	1281.0064	10.8544	1.4154	0.504
0.50500	24.43454	0.1453	1665.5011	10.7453	1.5342	0.549
0.51000	25.83069	0.1537	2146.0000	10.6380	1.6599	0.594
0.51500	27.26481	0.1623	2840.7260	10.5327	1.7928	0.641
0.52000	28.73935	0.1711	3801.9121	10.4291	1.9331	0.691
0.52500	30.25834	0.1802	5070.0000	10.3269	2.0808	0.744
0.53000	31.82773	0.1895	6695.4000	10.2264	2.2363	0.800
0.53500	33.45112	0.1989	8745.7289	10.1268	2.3997	0.854
0.54000	35.13074	0.2086	11390.2874	10.0287	2.5711	0.920
0.54500	36.86473	0.2184	14893.1013	9.9320	2.7507	0.984
0.55000	38.65223	0.2285	19510.0129	9.8367	2.9387	1.051
0.55500	40.49394	0.2387	25577.4101	9.7428	3.1352	1.121
0.56000	42.39133	0.2490	33440.4409	9.6504	3.3403	1.195
0.56500	44.34697	0.2595	43571.9719	9.5591	3.5542	1.271
0.57000	46.46243	0.2702	56410.6902	9.4689	3.7770	1.351







VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, CALIF. UNIVERSITY AT RIV. PM.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2026.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3700.0  
DEGREES FAHRENHEIT = 3690.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 21.09 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 3711.00 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 1181.50 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.070 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 175.074 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 12.319 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0733 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.3324 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EXITANCE TO TOTAL RADIANT EXITANCE.

THE TOTAL POWER RADIATED IS 301.31 WATT/CM<sup>2</sup> OR 3.0131E+000 FRC/SEC/CM<sup>2</sup> OR 7.2915E+000 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 184.78 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, 490 LUMENS PER WATT X RADIANT EXITANCE X VISIBILITY FACTOR,  
WHERE RADIANT EXITANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGES IN RADIANT EXITANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA:  $\Delta \propto \Delta T^N$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2026.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3700.0  
DEGREES FAHRENHEIT = 3690.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPOONENT N FOR WATSON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	1.78847	0.0094	0.0000	15.2277	0.0091	0.016
0.35500	2.01340	0.0109	0.0000	15.4074	0.0545	0.019
0.36000	2.11274	0.0125	0.0000	15.7998	0.0693	0.023
0.36500	2.43375	0.0143	0.0000	16.1997	0.0917	0.027
0.37000	3.00884	0.0163	0.0000	16.1994	0.0958	0.037
0.37500	3.40449	0.0184	0.0000	16.2074	0.1114	0.037
0.38000	3.84502	0.0204	0.0000	16.4045	0.1300	0.041
0.38500	4.32204	0.0234	0.0000	13.4344	0.1504	0.050
0.39000	4.43845	0.0262	0.0000	13.4810	0.1719	0.057
0.39500	4.30711	0.0295	0.0000	13.4801	0.1919	0.066
0.40000	4.30947	0.3195	1.4117	13.1194	0.2973	0.074
0.40500	4.44421	0.0360	3.6150	13.1550	0.2589	0.086
0.41000	7.33711	0.0397	5.9077	12.9944	0.2996	0.098
0.41500	4.37425	0.0437	12.0421	12.4351	0.3323	0.110
0.42000	4.44294	0.0480	24.1072	12.4857	0.3747	0.124
0.42500	4.49824	0.0525	40.1621	12.4360	0.4210	0.140
0.43000	10.58283	0.0573	43.1774	12.1902	0.4717	0.157
0.43500	11.51725	0.0623	131.3730	12.2474	0.5270	0.175
0.44000	12.50192	0.0677	195.3308	12.1787	0.5870	0.195
0.44500	13.53713	0.0733	260.0523	11.9724	0.6521	0.218
0.45000	14.42344	0.0782	377.8597	11.8104	0.7224	0.240
0.45500	15.75949	0.0853	514.3983	11.7094	0.7884	0.265
0.46000	16.94694	0.0917	691.4352	11.5677	0.8651	0.297
0.46500	18.18464	0.0984	915.0671	11.4377	0.9679	0.331
0.47000	19.47219	0.1054	1204.9389	11.3354	1.0621	0.352
0.47500	20.80931	0.1124	1584.8309	11.2165	1.1627	0.366
0.48000	22.19537	0.1201	2097.0042	11.0907	1.2702	0.409
0.48500	23.69590	0.1279	2715.5125	10.9451	1.3848	0.440
0.49000	25.11114	0.1359	3511.7218	10.8739	1.5048	0.500
0.49500	26.63912	0.1449	4673.5600	10.7434	1.6348	0.563
0.50000	28.21244	0.1527	6154.5834	10.6558	1.7731	0.588
0.50500	29.83001	0.1615	8051.7640	10.5501	1.9182	0.637
0.51000	31.40054	0.1705	10771.0372	10.4404	2.0715	0.687
0.51500	33.19284	0.1787	13723.2478	10.3654	2.2311	0.741
0.52000	34.93561	0.1861	16866.8174	10.2941	2.4014	0.794
0.52500	36.71685	0.1937	19799.1934	10.1484	2.5874	0.857
0.53000	38.53583	0.2006	22568.0425	10.0328	2.7707	0.930
0.53500	40.39017	0.2106	25130.7057	9.9348	2.9600	0.985
0.54000	42.27884	0.2204	27427.1398	9.8668	3.1766	1.054
0.54500	44.20007	0.2303	29454.8821	9.7743	3.3900	1.125
0.55000	46.15199	0.2408	31294.3734	9.6873	3.6167	1.200
0.55500	48.13274	0.2495	32730.7977	9.6001	3.8574	1.279
0.56000	50.14000	0.2574	33925.3340	9.5144	4.0941	1.360
0.56500	52.17443	0.2624	34732.9415	9.4405	4.3510	1.445
0.57000	54.23154	0.2636	35107.3393	9.3674	4.6199	1.533





VISIBILITY AND OTHER DATA FOR PLANCK RADIATOR, MECHANICS DIVISION, D.R.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 2474.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2750.0  
DEGREES FAHRENHEIT = 4490.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 74.62 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 4390.95 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 1400.23 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.076 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 170.444 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 13.366 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0534 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.3240 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 324.26 WATT/CM<sup>2</sup> OR 3.74259E+09 ERG/SEC/CM<sup>2</sup> OR 7.74909E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 707.80 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT X RADIANT EMITTANCE X VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta W = M \Delta T$  .

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 2474.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2750.0  
DEGREES FAHRENHEIT = 4490.0

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K=2750	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	2.30071	0.0114	0.0000	10.9455	0.0062	0.000
0.35500	2.44532	0.0131	0.0000	10.7350	0.0786	0.024
0.36000	1.02442	0.0149	0.0000	14.4303	0.0090	0.009
0.36500	1.44730	0.0170	0.0000	14.3313	0.1080	0.034
0.37000	1.90887	0.0193	0.0000	14.1376	0.1273	0.039
0.37500	4.41127	0.0214	0.0000	13.9491	0.1481	0.046
0.38000	4.92461	0.0245	0.0000	13.7654	0.1715	0.053
0.38500	4.55849	0.0275	0.0000	13.5768	0.1974	0.061
0.39000	4.20290	0.0306	0.0000	13.4124	0.2272	0.070
0.39500	6.40710	0.0341	0.0000	13.2424	0.2599	0.080
0.40000	7.44244	0.0377	2.0788	13.0773	0.2962	0.091
0.40500	8.44081	0.0417	4.5918	12.9159	0.3364	0.104
0.41000	9.70274	0.0459	7.4829	12.7584	0.3807	0.117
0.41500	10.10904	0.0504	15.2586	12.6046	0.4294	0.132
0.42000	11.16204	0.0551	30.3408	12.4546	0.4826	0.149
0.42500	12.18095	0.0602	60.4462	12.3081	0.5412	0.167
0.43000	13.25680	0.0655	104.5496	12.1650	0.6047	0.186
0.43500	14.39000	0.0711	168.3914	12.0252	0.6718	0.208
0.44000	15.58080	0.0769	243.6837	11.8885	0.7487	0.231
0.44500	16.82929	0.0831	331.8735	11.7549	0.8297	0.256
0.45000	18.13544	0.0896	440.4187	11.6241	0.9171	0.282
0.45500	19.49844	0.0963	576.4426	11.4966	1.0112	0.312
0.46000	20.91933	0.1033	753.5067	11.3717	1.1128	0.343
0.46500	22.39629	0.1106	1194.9812	11.2494	1.2205	0.376
0.47000	23.92964	0.1182	1680.7300	11.1294	1.3343	0.412
0.47500	25.51681	0.1260	1943.1620	11.0126	1.4599	0.450
0.48000	27.15844	0.1341	2567.0386	10.8979	1.5915	0.491
0.48500	28.85354	0.1425	3315.8480	10.7854	1.7315	0.534
0.49000	30.60223	0.1511	4226.0966	10.6756	1.8801	0.580
0.49500	32.39744	0.1600	5441.8095	10.5674	2.0376	0.628
0.50000	34.24182	0.1691	7521.3117	10.4621	2.2042	0.680
0.50500	36.13781	0.1785	10001.5016	10.3584	2.3801	0.734
0.51000	38.07784	0.1880	13024.1519	10.2570	2.5657	0.791
0.51500	40.06224	0.1974	16563.3504	10.1575	2.7610	0.851
0.52000	42.09033	0.2070	20370.7277	10.0599	2.9644	0.915
0.52500	44.15714	0.2161	23811.3159	9.9641	3.1820	0.981
0.53000	46.26395	0.2245	27118.0748	9.8702	3.4080	1.051
0.53500	48.40770	0.2331	30119.2704	9.7780	3.6447	1.124
0.54000	50.58645	0.2418	32816.4424	9.6875	3.8921	1.200
0.54500	52.79817	0.2507	35184.7036	9.5986	4.1506	1.280
0.55000	55.04081	0.2598	37840.6124	9.5114	4.4202	1.363
0.55500	57.31227	0.2690	39972.3439	9.4258	4.7010	1.450
0.56000	59.61045	0.2784	40532.4272	9.3417	4.9933	1.540
0.56500	61.93321	0.2879	41210.1768	9.2591	5.2972	1.634
0.57000	64.27841	0.2974	41811.2440	9.1780	5.6127	1.731







VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, D.M.E., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2524.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2800.0  
DEGREES FAHRENHEIT = 4580.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 25.40 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 5122.27 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 1629.57 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.082.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 181.191 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 14.471 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0450 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.0451 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT INTENSITY TO TOTAL RADIANT INTENSITY.

THE TOTAL POWER RADIATED IS 308.49 WATT/CM<sup>2</sup> OR 3.084900000 CAL/SEC/CM<sup>2</sup> OR 0.117150000 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 221.58 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT INTENSITY \* VISIBILITY FACTOR,  
WHERE RADIANT INTENSITY IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT INTENSITY (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta W = W \cdot M \cdot \Delta T$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2524.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2800.0  
DEGREES FAHRENHEIT = 4580.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATTS	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	3.10466	0.0134	0.0000	14.6784	0.0000	0.000
0.35500	3.44153	0.0155	0.0000	14.4718	0.1045	0.030
0.36000	3.92190	0.0177	0.0000	14.2708	0.1229	0.035
0.36500	4.45269	0.0201	0.0000	14.0754	0.1418	0.041
0.37000	5.03114	0.0227	0.0000	13.8851	0.1615	0.048
0.37500	5.66100	0.0254	0.0000	13.7000	0.1822	0.054
0.38000	6.34549	0.0284	0.0000	13.5194	0.2042	0.060
0.38500	7.08400	0.0320	0.0000	13.3442	0.2278	0.067
0.39000	7.87817	0.0354	0.0000	13.1731	0.2522	0.074
0.39500	8.72712	0.0394	0.0000	13.0064	0.2772	0.080
0.40000	9.63207	0.0436	2.6254	12.8434	0.3027	0.087
0.40500	10.59304	0.0480	5.7829	12.6852	0.3286	0.094
0.41000	11.61002	0.0527	9.5231	12.5305	0.3549	0.100
0.41500	12.67423	0.0574	19.1162	12.3794	0.3816	0.107
0.42000	13.78524	0.0622	37.9229	12.2322	0.4086	0.114
0.42500	14.93157	0.0670	75.3295	12.0893	0.4359	0.121
0.43000	16.11332	0.0718	129.9415	11.9498	0.4634	0.128
0.43500	17.33063	0.0765	203.7686	11.8104	0.4910	0.135
0.44000	18.58358	0.0810	301.3180	11.6762	0.5186	0.142
0.44500	19.87205	0.0853	409.3882	11.5451	0.5462	0.149
0.45000	21.19599	0.0897	576.7254	11.4164	0.5737	0.156
0.45500	22.55544	0.0941	781.4813	11.2913	0.6011	0.163
0.46000	23.94934	0.0985	1045.6788	11.1684	0.6284	0.170
0.46500	25.37760	0.1028	1377.7134	11.0484	0.6556	0.177
0.47000	26.84039	0.1071	1806.3011	10.9310	0.6827	0.184
0.47500	28.33773	0.1113	2345.6995	10.8160	0.7097	0.191
0.48000	29.86962	0.1155	3118.5220	10.7034	0.7366	0.198
0.48500	31.43606	0.1197	4020.1266	10.5930	0.7634	0.205
0.49000	33.03704	0.1238	5237.0769	10.4850	0.7901	0.212
0.49500	34.67257	0.1279	6864.2877	10.3791	0.8167	0.219
0.50000	36.34264	0.1319	9004.3034	10.2754	0.8432	0.226
0.50500	38.04726	0.1359	12013.6097	10.1737	0.8696	0.233
0.51000	39.78644	0.1398	15642.1252	10.0740	0.8959	0.240
0.51500	41.56017	0.1437	19897.4041	9.9769	0.9221	0.247
0.52000	43.36844	0.1475	24319.6026	9.8803	0.9482	0.254
0.52500	45.21126	0.1513	29448.4072	9.7863	0.9742	0.261
0.53000	47.08864	0.1550	32344.8238	9.6940	1.0000	0.268
0.53500	48.99957	0.1587	35045.3781	9.6035	1.0257	0.275
0.54000	50.94404	0.1624	39014.0254	9.5144	1.0513	0.282
0.54500	52.92207	0.1660	41743.2376	9.4274	1.0768	0.289
0.55000	54.93364	0.1696	44134.7881	9.3417	1.1022	0.296
0.55500	56.97876	0.1731	44116.5423	9.2574	1.1275	0.303
0.56000	59.05741	0.1766	47654.3382	9.1751	1.1527	0.310
0.56500	61.16957	0.1799	48443.2668	9.0939	1.1778	0.317
0.57000	63.31524	0.1831	49071.8168	9.0141	1.2028	0.324

0.57500	78.40087	0.1518	08781.0192	4.0340	7.1806	2.055
0.58000	81.09159	0.1600	07973.7921	4.0590	7.5595	2.169
0.58500	81.79544	0.1702	46551.8144	4.7814	7.9717	2.287
0.59000	44.51014	0.1804	44531.9578	4.7061	8.1075	2.410
0.59500	89.21127	0.1907	42171.6000	4.6160	8.4364	2.534
0.60000	91.94232	0.2010	19459.1928	4.5641	9.2880	2.666
0.60500	94.69521	0.2113	16510.6849	4.5615	9.7445	2.800
0.61000	97.42940	0.2217	33324.8214	4.4240	10.2348	2.937
0.61500	100.16329	0.2320	30836.9471	4.1954	10.7307	3.079
0.62000	102.89819	0.2424	26457.8040	4.5884	11.2384	3.225
0.62500	105.61893	0.2527	21054.7174	4.2222	11.7597	3.374
0.63000	108.33870	0.2630	18527.6344	4.1571	12.2946	3.528
0.63500	111.05842	0.2733	16344.1753	4.0910	12.8431	3.685
0.64000	113.77714	0.2836	13535.9094	4.0250	13.4050	3.847
0.64500	116.49294	0.2939	10924.8484	7.0477	13.9805	4.012
0.65000	119.20485	0.3042	8646.0107	7.0064	14.5694	4.181
0.65500	121.91284	0.3145	6734.4648	7.0444	15.1715	4.351
0.66000	124.61695	0.3248	5149.9048	7.7873	15.7889	4.530
0.66500	127.31714	0.3351	3844.5530	7.7240	16.4154	4.710
0.67000	129.96674	0.3454	2820.2424	7.6715	17.0570	4.895
0.67500	132.61789	0.3557	2047.9785	7.6140	17.7115	5.082
0.68000	135.27074	0.3660	1537.4411	7.5591	18.3787	5.274
0.68500	137.92477	0.3763	1110.6170	7.5025	19.0587	5.469
0.69000	139.57970	0.3866	779.2109	7.4500	19.7512	5.668
0.69500	142.23594	0.3969	541.2070	7.3944	20.4561	5.870
0.70000	144.84730	0.4072	403.2747	7.3441	21.1732	6.074
0.70500	147.45365	0.4175	269.8494	7.2922	21.9025	6.285
0.71000	149.92873	0.4278	213.3835	7.2411	22.6437	6.498
0.71500	152.37004	0.4381	154.8045	7.1904	23.3967	6.714
0.72000	154.77817	0.4484	114.2505	7.1411	24.1618	6.931
0.72500	156.34144	0.4587	74.4234	7.0921	24.9374	7.156
0.73000	158.54874	0.4690	43.9205	7.0439	25.7244	7.382
0.73500	160.70161	0.4793	43.7353	6.9962	26.5213	7.611
0.74000	162.95654	0.4896	33.2431	6.9491	27.3327	7.841
0.74500	165.08306	0.4999	29.4518	6.9039	28.1528	8.074
0.75000	167.17314	0.5102	11.3474	6.8577	28.9814	8.317
0.75500	171.23877	0.5205	0.0000	6.7677	30.4754	8.809
0.76000	175.13763	0.5308	0.0000	6.6794	32.4074	9.299
0.76500	178.87867	0.5411	0.0000	6.5934	34.1778	9.607
0.77000	182.45555	0.5514	0.0000	6.5100	35.9846	10.326
0.77500	185.86663	0.5617	0.0000	6.4283	37.8266	10.854
0.78000	189.11084	0.5720	0.0000	6.3483	39.7014	11.397
0.78500	192.18790	0.5823	0.0000	6.2702	41.6080	11.939
0.79000	195.09779	0.5926	0.0000	6.2025	43.5466	12.489
0.79500	197.84121	0.6029	0.0000	6.1364	45.5094	13.059
0.80000	200.41922	0.6132	0.0000	6.0741	47.5009	13.630
0.80500	202.83333	0.6235	0.0000	6.0149	49.5273	14.209
0.81000	205.08541	0.6338	0.0000	5.9583	51.5570	14.794
0.81500	207.17774	0.6441	0.0000	5.9041	53.6144	15.384
0.82000	209.11274	0.6544	0.0000	5.8523	55.7000	15.981
0.82500	210.89334	0.6647	0.0000	5.7923	57.8002	16.586
0.83000	212.52251	0.6750	0.0000	5.7344	59.9176	17.193
0.83500	214.00364	0.6853	0.0000	5.6793	62.0591	17.805
0.84000	215.33067	0.6956	0.0000	5.6264	64.1970	18.421
0.84500	216.51467	0.7059	0.0000	5.5754	66.3344	19.041

0.99000	217.55217	0.8420	0.0000	4.4322	48.4272	19.684
0.99500	218.51594	0.8523	0.0000	4.3771	50.7078	20.290
0.99800	219.34099	0.8626	0.0000	4.3231	52.4971	20.914
0.99900	219.87813	0.8729	0.0000	4.2702	54.0914	21.548
0.99950	220.32441	0.8832	0.0000	4.2184	55.7042	22.180
0.99980	220.75274	0.8935	0.0000	4.1674	57.5017	22.814
1.00000	221.26744	0.9038	0.0000	4.1181	61.7140	23.444
1.00050	221.47235	0.9141	0.0000	4.0677	63.9287	24.081
1.00100	221.57144	0.9244	0.0000	4.0221	66.1440	24.710
1.00150	221.56482	0.9347	0.0000	4.0754	68.3598	25.355
1.00200	221.46847	0.9450	0.0000	4.0284	70.5751	25.991
1.00250	221.27412	0.9553	0.0000	4.0851	72.7884	26.624
1.00300	220.98984	0.9656	0.0000	4.0412	75.0002	27.260
1.00350	220.61014	0.9759	0.0000	4.0942	77.2043	27.894
1.00400	220.16649	0.9862	0.0000	4.0500	79.4123	28.526
1.00450	219.61893	0.9965	0.0000	4.0044	101.6114	29.158
1.00500	219.02884	0.9968	0.0000	4.0740	103.8048	29.787
1.00550	218.36944	0.9854	0.0000	4.1442	105.9917	30.418
1.00600	217.65307	0.9757	0.0000	4.0952	108.1714	31.040
1.00650	216.79164	0.9660	0.0000	4.0509	110.3434	31.661
1.00700	215.91474	0.9563	0.0000	4.0141	112.5072	32.284
1.00750	214.98750	0.9466	0.0000	4.0723	114.6618	32.907
1.00800	214.00100	0.9369	0.0000	4.0441	116.8047	33.514
1.00850	212.94224	0.9272	0.0000	4.0105	118.9416	34.130
1.00900	211.87427	0.9175	0.0000	4.0744	121.0654	34.746
1.00950	210.71971	0.9078	0.0000	4.0413	123.1749	35.364
1.01000	209.56144	0.8981	0.0000	4.0074	125.2845	35.980
1.01050	208.34217	0.8884	0.0000	4.0745	127.3700	36.595
1.01100	207.08421	0.8787	0.0000	4.0419	129.4472	37.185
1.01150	205.79012	0.8690	0.0000	4.2100	131.5116	37.737
1.01200	204.46274	0.8593	0.0000	4.1744	133.5699	38.324
1.01250	203.10381	0.8496	0.0000	4.1477	135.6007	38.911
1.01300	201.71974	0.8399	0.0000	4.1173	137.6240	39.499
1.01350	200.30044	0.8302	0.0000	4.0874	139.6350	40.084
1.01400	198.84061	0.8205	0.0000	4.0572	141.6378	40.641
1.01450	197.36761	0.8108	0.0000	4.0294	143.6121	41.210
1.01500	195.91352	0.8011	0.0000	4.0010	145.5747	41.774
1.01550	194.41014	0.7914	0.0000	3.9731	147.5303	42.334
1.01600	192.86927	0.7817	0.0000	3.9457	149.4648	42.899
1.01650	191.35254	0.7720	0.0000	3.9187	151.3804	43.441
1.01700	189.80147	0.7623	0.0000	3.8921	153.2918	43.988
1.01750	188.23789	0.7526	0.0000	3.8640	155.1840	44.530
1.01800	186.66287	0.7429	0.0000	3.8404	157.0595	45.068
1.01850	185.07490	0.7332	0.0000	3.8159	158.9173	45.601
1.01900	183.48491	0.7235	0.0000	3.7931	160.7601	46.130
1.01950	181.89444	0.7138	0.0000	3.7654	162.5849	46.654
1.02000	180.27794	0.7041	0.0000	3.7415	164.4077	47.174
1.02050	178.66641	0.6944	0.0000	3.7177	166.1925	47.689
1.02100	177.05140	0.6847	0.0000	3.6943	167.9711	48.199
1.02150	175.43344	0.6750	0.0000	3.6713	169.7335	48.705
1.02200	173.81444	0.6653	0.0000	3.6484	171.4767	49.204
1.02250	172.19444	0.6556	0.0000	3.6243	173.2098	49.701
1.02300	170.57442	0.6459	0.0000	3.6043	174.9336	50.195
1.02350	168.95544	0.6362	0.0000	3.5824	176.6213	50.682
1.02400	167.33444	0.6265	0.0000	3.5613	178.3027	51.164

1.50000	185.72419	0.7479	0.0000	1.5402	179.9640	51.647
1.60000	187.88849	0.6764	0.0000	1.3458	145.7824	54.164
1.70000	134.84662	0.6087	0.0000	1.1744	209.9705	60.251
1.80000	170.99941	0.5461	0.0000	1.0244	222.7517	61.919
1.90000	108.17847	0.4891	0.0000	2.4979	214.2121	67.207
2.00000	97.00867	0.4374	0.0000	2.7819	244.4712	70.151
2.10000	86.83461	0.3919	0.0000	2.4744	254.6539	72.784
2.20000	77.77487	0.3510	0.0000	2.5554	261.8746	75.145
2.30000	69.73074	0.3147	0.0000	2.4017	249.2629	77.260
2.40000	62.59464	0.2824	0.0000	2.4759	275.4520	79.156
2.50000	56.27095	0.2540	0.0000	2.4549	281.7849	80.860
2.60000	50.64674	0.2297	0.0000	2.2940	287.1102	82.392
2.70000	44.89765	0.2062	0.0000	2.2141	291.8438	83.773
2.80000	41.24784	0.1861	0.0000	2.1436	294.2843	85.028
2.90000	37.36995	0.1647	0.0000	2.1144	300.2174	86.148
3.00000	33.88439	0.1529	0.0000	2.0894	303.7747	87.169
3.10000	30.77887	0.1399	0.0000	2.0677	307.8040	88.096
3.20000	28.00754	0.1264	0.0000	2.0484	309.9437	88.939
3.30000	25.53045	0.1132	0.0000	1.9727	312.4183	89.704
3.40000	23.31251	0.1032	0.0000	1.9140	315.0584	90.404
3.50000	21.32321	0.0945	0.0000	1.8671	317.2844	91.044
3.60000	19.53591	0.0842	0.0000	1.8274	319.1907	91.632
3.70000	17.92731	0.7809	0.0000	1.4505	321.2015	92.169
3.80000	16.47707	0.2744	0.0000	1.4740	322.8205	92.667
3.90000	15.16737	0.0645	0.0000	1.2942	324.4016	93.116
4.00000	13.98762	0.0431	0.0000	1.2740	325.9441	93.534
4.10000	12.90912	0.0543	0.0000	1.2541	327.3018	93.920
4.20000	11.93384	0.0539	0.0000	1.2133	328.5433	94.274
4.30000	11.04924	0.0499	0.0000	1.2134	329.6918	94.605
4.40000	10.24300	0.0462	0.0000	1.0940	330.7555	94.911
4.50000	9.50787	0.0429	0.0000	1.0772	331.7427	95.194
4.60000	8.83659	0.0399	0.0000	1.0611	332.6595	95.457
4.70000	8.22271	0.0371	0.0000	1.0482	333.5120	95.702
4.80000	7.66049	0.0346	0.0000	1.0394	334.3047	95.929
4.90000	7.14510	0.0322	0.0000	1.0342	335.0456	96.147
5.00000	6.67175	0.0301	0.0000	1.0302	335.7361	96.346
5.10000	6.23651	0.0281	0.0000	1.0264	336.3811	96.525
5.20000	5.83587	0.0263	0.0000	1.0240	336.9844	96.684
5.30000	5.46655	0.0247	0.0000	1.0218	337.5495	96.826
5.40000	5.12571	0.0231	0.0000	1.0200	338.0789	96.952
5.50000	4.81079	0.0217	0.0000	1.0187	338.5745	97.067
5.60000	4.51947	0.0204	0.0000	1.0179	339.0401	97.168
5.70000	4.24970	0.0192	0.0000	1.0175	339.4801	97.256
5.80000	3.99959	0.0181	0.0000	1.0174	339.8924	97.332
5.90000	3.76744	0.0170	0.0000	1.0174	340.2806	97.394
6.00000	3.55184	0.0160	0.0000	1.0174	340.6464	97.449
6.10000	3.35130	0.0151	0.0000	1.0174	340.9915	97.494
6.20000	3.16462	0.0143	0.0000	1.0174	341.3172	97.531
6.30000	2.99064	0.0135	0.0000	1.0174	341.6248	97.560
6.40000	2.82844	0.0128	0.0000	1.0174	341.9157	97.581
6.50000	2.67700	0.0121	0.0000	1.0174	342.1909	97.597
6.60000	2.53540	0.0114	0.0000	1.0174	342.4514	97.608
6.70000	2.40317	0.0108	0.0000	1.0174	342.6983	97.615
6.80000	2.27931	0.0103	0.0000	1.0174	342.9323	97.619
6.90000	2.16379	0.0098	0.0000	1.0174	343.1544	97.620

7.00000	2.05452	0.0091	0.0000	1.0174	343.3652	97.620
7.10000	1.95247	0.0084	0.0000	1.0174	343.5645	97.618
7.20000	1.85444	0.0078	0.0000	1.0174	343.7559	97.614
7.30000	1.76061	0.0073	0.0000	1.0174	343.9371	97.609
7.40000	1.67191	0.0068	0.0000	1.0174	344.1094	97.603
7.50000	1.58822	0.0063	0.0000	1.0174	344.2734	97.596
7.60000	1.50949	0.0059	0.0000	1.0174	344.4300	97.589
7.70000	1.43549	0.0056	0.0000	1.0174	344.5792	97.581
7.80000	1.36604	0.0053	0.0000	1.0174	344.7215	97.574
7.90000	1.30147	0.0050	0.0000	1.0174	344.8573	97.567
8.00000	1.24174	0.0047	0.0000	1.0174	344.9870	97.560
8.10000	1.18684	0.0045	0.0000	1.0174	345.1109	97.553
8.20000	1.13671	0.0043	0.0000	1.0174	345.2291	97.546
8.30000	1.09121	0.0041	0.0000	1.0174	345.3426	97.539
8.40000	1.05044	0.0040	0.0000	1.0174	345.4510	97.532
8.50000	1.01437	0.0038	0.0000	1.0174	345.5544	97.525
8.60000	0.98280	0.0037	0.0000	1.0174	345.6529	97.518
8.70000	0.95563	0.0036	0.0000	1.0174	345.7464	97.511
8.80000	0.93287	0.0035	0.0000	1.0174	345.8357	97.504
8.90000	0.91454	0.0034	0.0000	1.0174	345.9203	97.497
9.00000	0.89963	0.0033	0.0000	1.0174	346.0013	97.490
9.10000	0.88817	0.0032	0.0000	1.0174	346.0789	97.483
9.20000	0.87907	0.0031	0.0000	1.0174	346.1529	97.476
9.30000	0.87225	0.0030	0.0000	1.0174	346.2234	97.469
9.40000	0.86763	0.0029	0.0000	1.0174	346.2904	97.462
9.50000	0.86501	0.0028	0.0000	1.0174	346.3539	97.455
9.60000	0.86421	0.0027	0.0000	1.0174	346.4139	97.448
9.70000	0.86514	0.0026	0.0000	1.0174	346.4704	97.441
9.80000	0.86763	0.0025	0.0000	1.0174	346.5234	97.434
9.90000	0.87167	0.0024	0.0000	1.0174	346.5729	97.427
10.00000	0.87720	0.0023	0.0000	1.0174	346.6189	97.420
10.10000	0.88417	0.0022	0.0000	1.0174	346.6614	97.413
10.20000	0.89255	0.0021	0.0000	1.0174	346.7004	97.406
10.30000	0.90230	0.0020	0.0000	1.0174	346.7359	97.399
10.40000	0.91347	0.0019	0.0000	1.0174	346.7679	97.392
10.50000	0.92601	0.0018	0.0000	1.0174	346.7964	97.385
10.60000	0.94000	0.0017	0.0000	1.0174	346.8214	97.378
10.70000	0.95541	0.0016	0.0000	1.0174	346.8429	97.371
10.80000	0.97220	0.0015	0.0000	1.0174	346.8609	97.364
10.90000	0.99035	0.0014	0.0000	1.0174	346.8754	97.357
11.00000	1.00984	0.0013	0.0000	1.0174	346.8864	97.350
11.10000	1.03067	0.0012	0.0000	1.0174	346.8939	97.343
11.20000	1.05284	0.0011	0.0000	1.0174	346.8979	97.336
11.30000	1.07635	0.0010	0.0000	1.0174	346.8984	97.329
11.40000	1.10120	0.0009	0.0000	1.0174	346.8954	97.322
11.50000	1.12739	0.0008	0.0000	1.0174	346.8889	97.315
11.60000	1.15484	0.0007	0.0000	1.0174	346.8789	97.308
11.70000	1.18355	0.0006	0.0000	1.0174	346.8654	97.301
11.80000	1.21344	0.0005	0.0000	1.0174	346.8484	97.294
11.90000	1.24451	0.0004	0.0000	1.0174	346.8279	97.287
12.00000	1.27676	0.0003	0.0000	1.0174	346.8039	97.280

VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, D.R.L., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 2576.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE, DEGREES K = 2850.0  
DEGREES FAHRENHEIT = 4670.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 33.06 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 6070.91 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 1932.43 CAND-ELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.088 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 183.416 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 18.215 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 1.0 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.2510 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT INTENSITY TO TOTAL RADIANT INTENSITY.

THE TOTAL POWER RADIATED IS 374.06 WATT/CM<sup>2</sup> OR 3.740540600 ENG/SEC/CM<sup>2</sup> OR 9.947150002 REAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 242.00 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS ( COLUMN 4 ) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT INTENSITY \* VISIBILITY FACTOR.  
WHERE RADIANT INTENSITY IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT INTENSITY (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA W = K \* W \* N .

THE EMISSIVITY IS 1.000 AND THE TEMPERATURE IS 2576.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE, DEGREES K = 2850.0  
DEGREES FAHRENHEIT = 4670.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT N FOR RATION	POWER FROM ZERO TO L	8 TOTAL POWER ZERO TO L
0.35000	1.00000	0.0000	0.0000	10.0711	0.1169	0.031
0.35500	4.03675	0.0151	0.0000	10.2179	0.1377	0.037
0.36000	9.01871	0.0208	0.0000	10.4205	0.1613	0.044
0.36500	9.00007	0.0215	0.0000	10.6214	0.1882	0.050
0.37000	6.41915	0.0245	0.0000	10.8214	0.2144	0.058
0.37500	7.10904	0.0257	0.0000	11.0214	0.2524	0.067
0.38000	4.04405	0.0312	0.0000	11.2214	0.2905	0.078
0.38500	6.95174	0.0370	0.0000	11.4214	0.3310	0.090
0.39000	9.01077	0.0410	0.0000	11.6214	0.3802	0.104
0.39500	10.97654	0.0451	0.0000	11.8214	0.4324	0.118
0.40000	12.04242	0.0500	3.2372	12.0214	0.4801	0.131
0.40500	13.28010	0.0540	7.2244	12.2214	0.5335	0.148
0.41000	14.51895	0.0601	11.0446	12.4214	0.5930	0.167
0.41500	15.77293	0.0654	21.7459	12.6214	0.6590	0.187
0.42000	17.04057	0.0718	47.0004	12.8214	0.7318	0.209
0.42500	18.32017	0.0775	93.1255	13.0214	0.8119	0.233
0.43000	20.61485	0.0815	160.2435	13.2214	0.9006	0.255
0.43500	21.94544	0.0904	250.6471	13.4214	1.0072	0.287
0.44000	23.40540	0.0977	369.8546	13.6214	1.1301	0.317
0.44500	25.00100	0.1050	501.3021	13.8214	1.2718	0.351
0.45000	27.74084	0.1124	704.6217	14.0214	1.4335	0.388
0.45500	29.14768	0.1200	952.6899	14.2214	1.6146	0.424
0.46000	31.17703	0.1284	1272.0217	14.4214	1.7355	0.464
0.46500	33.23533	0.1371	1679.4004	14.6214	1.8945	0.507
0.47000	35.16111	0.1461	2198.1452	14.8214	2.0679	0.553
0.47500	37.35278	0.1551	2860.0201	15.0214	2.2502	0.602
0.48000	39.80258	0.1644	3742.7044	15.2214	2.4416	0.653
0.48500	42.12644	0.1740	4841.1756	15.4214	2.6444	0.708
0.49000	44.50642	0.1838	6294.7198	15.6214	2.8649	0.766
0.49500	46.94040	0.1939	8215.2390	15.8214	3.0935	0.827
0.50000	49.43210	0.2042	10857.2444	16.0214	3.3344	0.891
0.50500	51.97694	0.2147	14385.1442	16.2214	3.5879	0.959
0.51000	54.57260	0.2254	18604.0174	16.4214	3.8543	1.030
0.51500	57.21644	0.2363	23655.5729	16.6214	4.1337	1.105
0.52000	59.90591	0.2475	29922.5732	16.8214	4.4245	1.182
0.52500	62.64187	0.2587	37777.0611	17.0214	4.7329	1.264
0.53000	65.41081	0.2702	48341.1794	17.2214	5.0530	1.351
0.53500	68.22075	0.2818	62446.9503	17.4214	5.3871	1.440
0.54000	71.06529	0.2936	80101.4751	17.6214	5.7353	1.531
0.54500	73.94181	0.3054	101274.8460	17.8214	6.0978	1.620
0.55000	76.84644	0.3174	128044.9832	18.0214	6.4747	1.711
0.55500	79.77890	0.3295	162497.1757	18.2214	6.8653	1.806
0.56000	82.73279	0.3417	195777.0875	18.4214	7.2705	1.904
0.56500	85.70740	0.3540	238977.3994	18.6214	7.6916	2.007
0.57000	88.70642	0.3664	29221.1030	18.8214	8.1296	2.113

0.57500	91.70744	0.1788	97040.6203	8.7794	8.5407	2.294
0.58000	94.72732	0.1811	98040.6789	8.7838	9.0447	2.419
0.58500	97.75611	0.4038	98309.3820	8.4295	9.5288	2.547
0.59000	100.79152	0.4181	91441.4451	8.4545	10.0243	2.688
0.59500	103.81093	2.4289	89070.4983	8.4847	10.5152	2.817
0.60000	106.87172	0.4415	85854.5172	8.4181	11.0026	2.951
0.60500	109.91134	0.4550	82377.4224	8.3467	11.4864	3.102
0.61000	112.94735	0.4686	78412.5128	8.2765	12.1617	3.251
0.61500	115.97724	0.4791	74779.2679	8.2093	12.7341	3.401
0.62000	118.99874	0.4815	70840.2049	8.1531	13.3215	3.541
0.62500	122.00954	0.4840	66412.2457	8.0974	13.9215	3.722
0.63000	125.00737	0.4864	62424.3278	8.0434	14.5461	3.888
0.63500	127.99804	0.4887	58844.2130	7.9914	15.1743	4.057
0.64000	130.94554	0.4909	55441.7041	7.9404	15.8215	4.230
0.64500	133.94017	0.4931	52545.1440	7.8904	16.4843	4.407
0.65000	136.87687	0.4952	49945.4210	7.8414	17.1654	4.588
0.65500	139.72891	0.4972	47494.2441	7.7934	17.8518	4.772
0.66000	142.60617	0.4991	45151.3012	7.7464	18.5557	4.961
0.66500	145.44574	0.4998	42850.0744	7.6994	19.2774	5.154
0.67000	148.27914	0.49125	40245.5550	7.6514	20.0172	5.350
0.67500	151.07184	0.49247	37342.7637	7.6014	20.7866	5.550
0.68000	153.83124	0.4934	34745.1128	7.5514	21.5829	5.754
0.68500	156.56197	0.49467	32445.8908	7.5014	22.4089	5.961
0.69000	159.24445	0.49579	30445.1511	7.4514	23.2684	6.172
0.69500	161.84140	0.49684	28745.855	7.4014	24.1614	6.387
0.70000	164.34892	0.49747	27345.7365	7.3514	25.0904	6.604
0.70500	167.74417	0.49804	26245.989	7.3014	26.0547	6.827
0.71000	169.87071	0.49852	25245.2484	7.2514	27.0511	7.052
0.71500	172.17742	0.49891	24345.4212	7.2014	28.0804	7.280
0.72000	174.64391	0.49915	23445.3144	7.1514	29.1404	7.512
0.72500	177.06874	0.49934	22645.2447	7.1014	30.2307	7.747
0.73000	179.45135	0.49941	21945.1115	7.0514	31.3510	7.984
0.73500	181.79062	0.49949	21345.0371	7.0014	32.5014	8.227
0.74000	184.10870	0.49954	20745.0137	6.9514	33.6864	8.472
0.74500	186.33874	0.49957	20245.1421	6.9014	34.9149	8.719
0.75000	188.48980	0.49959	19745.2111	6.8514	36.1852	8.970
0.75500	192.62362	0.49964	19345.0000	6.8014	37.4952	9.240
0.76000	194.64172	0.49968	19045.0000	6.7514	38.8400	9.501
0.76500	200.54242	0.49974	18745.0000	6.7014	39.3249	9.769
0.77000	204.44304	0.49979	18445.0000	6.6514	40.8447	10.044
0.77500	208.44304	0.49984	18145.0000	6.6014	42.4947	10.324
0.78000	212.44304	0.49989	17845.0000	6.5514	44.2747	10.604
0.78500	216.44304	0.49994	17545.0000	6.5014	46.1847	10.884
0.79000	220.44304	0.49999	17245.0000	6.4514	48.2247	11.164
0.79500	224.44304	0.50004	16945.0000	6.4014	50.3947	11.444
0.80000	228.44304	0.50009	16645.0000	6.3514	52.6947	11.724
0.80500	232.44304	0.50014	16345.0000	6.3014	55.1247	12.004
0.81000	236.44304	0.50019	16045.0000	6.2514	57.6847	12.284
0.81500	240.44304	0.50024	15745.0000	6.2014	60.3747	12.564
0.82000	244.44304	0.50029	15445.0000	6.1514	63.1947	12.844
0.82500	248.44304	0.50034	15145.0000	6.1014	66.1447	13.124
0.83000	252.44304	0.50039	14845.0000	6.0514	69.2247	13.404
0.83500	256.44304	0.50044	14545.0000	6.0014	72.4347	13.684
0.84000	260.44304	0.50049	14245.0000	5.9514	75.7647	13.964
0.84500	264.44304	0.50054	13945.0000	5.9014	79.2147	14.244
0.85000	268.44304	0.50059	13645.0000	5.8514	82.7847	14.524
0.85500	272.44304	0.50064	13345.0000	5.8014	86.4647	14.804
0.86000	276.44304	0.50069	13045.0000	5.7514	90.2547	15.084
0.86500	280.44304	0.50074	12745.0000	5.7014	94.1547	15.364
0.87000	284.44304	0.50079	12445.0000	5.6514	98.1647	15.644
0.87500	288.44304	0.50084	12145.0000	5.6014	102.2847	15.924
0.88000	292.44304	0.50089	11845.0000	5.5514	106.5147	16.204
0.88500	296.44304	0.50094	11545.0000	5.5014	110.8547	16.484
0.89000	300.44304	0.50099	11245.0000	5.4514	115.3047	16.764
0.89500	304.44304	0.50104	10945.0000	5.4014	120.8647	17.044
0.90000	308.44304	0.50109	10645.0000	5.3514	126.5347	17.324
0.90500	312.44304	0.50114	10345.0000	5.3014	132.3147	17.604
0.91000	316.44304	0.50119	10045.0000	5.2514	138.2047	17.884
0.91500	320.44304	0.50124	9745.0000	5.2014	144.2047	18.164
0.92000	324.44304	0.50129	9445.0000	5.1514	150.3147	18.444
0.92500	328.44304	0.50134	9145.0000	5.1014	156.5347	18.724
0.93000	332.44304	0.50139	8845.0000	5.0514	162.8647	19.004
0.93500	336.44304	0.50144	8545.0000	5.0014	169.3047	19.284
0.94000	340.44304	0.50149	8245.0000	4.9514	175.8547	19.564

0.94500	344.44304	0.50154	7945.0000	4.9014	182.5147	19.844
0.95000	348.44304	0.50159	7645.0000	4.8514	189.2847	20.124
0.95500	352.44304	0.50164	7345.0000	4.8014	196.1647	20.404
0.96000	356.44304	0.50169	7045.0000	4.7514	203.1547	20.684
0.96500	360.44304	0.50174	6745.0000	4.7014	210.2547	20.964
0.97000	364.44304	0.50179	6445.0000	4.6514	217.4647	21.244
0.97500	368.44304	0.50184	6145.0000	4.6014	224.7847	21.524
0.98000	372.44304	0.50189	5845.0000	4.5514	232.2147	21.804
0.98500	376.44304	0.50194	5545.0000	4.5014	239.7547	22.084
0.99000	380.44304	0.50199	5245.0000	4.4514	247.4047	22.364
0.99500	384.44304	0.50204	4945.0000	4.4014	255.1647	22.644
1.00000	388.44304	0.50209	4645.0000	4.3514	263.0347	22.924
1.00500	392.44304	0.50214	4345.0000	4.3014	271.0147	23.204
1.01000	396.44304	0.50219	4045.0000	4.2514	279.1047	23.484
1.01500	400.44304	0.50224	3745.0000	4.2014	287.3047	23.764
1.02000	404.44304	0.50229	3445.0000	4.1514	295.6147	24.044
1.02500	408.44304	0.50234	3145.0000	4.1014	304.0347	24.324
1.03000	412.44304	0.50239	2845.0000	4.0514	312.5647	24.604
1.03500	416.44304	0.50244	2545.0000	4.0014	321.2047	24.884
1.04000	420.44304	0.50249	2245.0000	3.9514	329.9547	25.164
1.04500	424.44304	0.50254	1945.0000	3.9014	338.8147	25.444
1.05000	428.44304	0.50259	1645.0000	3.8514	347.7847	25.724
1.05500	432.44304	0.50264	1345.0000	3.8014	356.8647	26.004
1.06000	436.44304	0.50269	1045.0000	3.7514	366.0547	26.284
1.06500	440.44304	0.50274	745.0000	3.7014	375.3547	26.564
1.07000	444.44304	0.50279	445.0000	3.6514	384.7647	26.844
1.07500	448.44304	0.50284	145.0000	3.6014	394.2847	27.124
1.08000	452.44304	0.50289	145.0000	3.5514	403.9147	27.404
1.08500	456.44304	0.50294	145.0000	3.5014	413.6547	27.684
1.09000	460.44304	0.50299	145.0000	3.4514	423.5047	27.964
1.09500	464.44304	0.50304	145.0000	3.4014	433.4647	28.244
1.10000	468.44304	0.50309	145.0000	3.3514	443.5347	28.524
1.10500	472.44304	0.50314	145.0000	3.3014	453.7147	28.804
1.11000	476.44304	0.50319	145.0000	3.2514	464.0047	29.084
1.11500	480.44304	0.50324	145.0000	3.2014	474.4047	29.364
1.12000	484.44304	0.50329	145.0000	3.1514	484.9147	29.644
1.12500	488.44304	0.50334	145.0000	3.1014	495.5347	29.924
1.13000	492.44304	0.50339	145.0000	3.0514	506.2647	30.204
1.13500	496.44304	0.50344	145.0000	3.0014	517.1047	30.484
1.14000	500.44304	0.50349	145.0000	2.9514	528.0547	30.764
1.14500	504.44304	0.50354	145.0000	2.9014	539.1147	31.044
1.15000	508.44304	0.50359	145.0000	2.8514	550.2847	31.324
1.15500	512.44304	0.50364	145.0000	2.8014	561.5647	31.604
1.16000	516.44304	0.50369	145.0000	2.7514	572.9547	31.884
1.16500	520.44304	0.50374	145.0000	2.7014	584.4547	32.164
1.17000	524.44304	0.50379	145.0000	2.6514	596.0647	32.444
1.17500	528.44304	0.50384	145.0000	2.6014	607.7847	32.724
1.18000	532.44304	0.50389	145.0000	2.5514	619.6147	33.004
1.18500	536.44304	0.50394	145.0000	2.5014	631.5547	33.284
1.19000	540.44304	0.50399	145.0000	2.4514	643.6047	33.564
1.19500	544.44304	0.50404	145.0000	2.4014	655.7647	33.844
1.20000	548.44304	0.50409	145.0000	2.3514	668.0347	34.124
1.20500	552.44304	0.50414	145.0000	2.3014	680.4147	34.404
1.21000	556.44304	0.50419	145.0000	2.2514	692.9047	34.684
1.21500	560.44304	0.50424	145.0000	2.2014	705.5047	34.964
1.22000	564.44304	0.50429	145.0000	2.1514	718.2147	35.244
1.22500	568.44304	0.50434	145.0000	2.1014	731.0347	35.524
1.23000	572.44304	0.50439	145.0000	2.0514	743.9647	35.804
1.23500	576.44304	0.50444	145.0000	2.0014	757.0047	36.084
1.24000	580.44304	0.50449	145.0000	1.9514	770.1547	36.364
1.24500	584.44304	0.50454	145.0000	1.9014	783.4147	36.64

1.50000	174.15489	0.7285	0.0000	1.4854	197.8741	52.499
1.60000	158.48019	0.4545	0.0000	1.7952	214.6315	57.379
1.70000	142.80757	0.5891	0.0000	1.1204	229.4985	61.407
1.80000	127.01344	0.5271	0.0000	2.0049	243.1978	65.014
1.90000	111.04104	0.4711	0.0000	2.8571	255.2687	68.243
2.00000	95.17017	0.4204	0.0000	2.7436	266.0539	71.124
2.10000	81.72123	0.3740	0.0000	2.4424	275.4649	73.702
2.20000	68.19424	0.3342	0.0000	2.5515	284.2981	76.004
2.30000	55.48651	0.3010	0.0000	2.4497	292.0025	78.063
2.40000	43.12317	0.2684	0.0000	2.1951	298.9042	79.904
2.50000	31.45300	0.2423	0.0000	2.1241	305.0942	81.564
2.60000	20.75343	0.2179	0.0000	2.2644	310.6605	83.051
2.70000	11.53172	0.1943	0.0000	2.2103	315.6455	84.390
2.80000	4.90517	0.1772	0.0000	2.1544	320.1547	85.598
2.90000	34.40061	0.1603	0.0000	2.1104	324.2679	86.689
3.00000	35.15347	0.1452	0.0000	2.0667	327.8820	87.677
3.10000	31.00464	0.1314	0.0000	2.0254	331.1120	88.572
3.20000	29.71541	0.1199	0.0000	1.9879	334.1555	89.384
3.30000	28.43247	0.1092	0.0000	1.9524	337.1255	90.124
3.40000	24.12277	0.0994	0.0000	1.9195	339.8512	90.802
3.50000	22.05149	0.0911	0.0000	1.8884	341.9540	91.418
3.60000	20.10247	0.0834	0.0000	1.8597	344.0646	91.983
3.70000	18.52117	0.7745	0.0000	1.8325	346.0928	92.500
3.80000	17.01511	0.0703	0.0000	1.8079	347.7743	92.974
3.90000	15.65549	0.0647	0.0000	1.7829	349.4107	93.411
4.00000	14.42711	0.0594	0.0000	1.7602	350.9134	93.813
4.10000	13.31437	0.0550	0.0000	1.7387	352.3000	94.183
4.20000	12.30504	0.0508	0.0000	1.7184	353.5802	94.529
4.30000	11.38404	0.0470	0.0000	1.6992	354.7441	94.842
4.40000	10.55363	0.0434	0.0000	1.6809	355.8605	95.135
4.50000	9.79315	0.0404	0.0000	1.6635	356.8773	95.407
4.60000	9.09044	0.0374	0.0000	1.6470	357.8214	95.659
4.70000	8.44647	0.0350	0.0000	1.6313	358.6991	95.894
4.80000	7.84817	0.0324	0.0000	1.6161	359.5161	96.112
4.90000	7.35134	0.0304	0.0000	1.6019	360.2774	96.318
5.00000	6.84249	0.0283	0.0000	1.5882	360.9874	96.504
5.10000	6.41351	0.0265	0.0000	1.5749	361.6513	96.673
5.20000	6.00011	0.0248	0.0000	1.5624	362.2717	96.849
5.30000	5.61921	0.2332	0.0000	1.5504	362.8524	97.004
5.40000	5.26777	0.0214	0.0000	1.5391	363.3945	97.150
5.50000	4.94314	0.0204	0.0000	1.5281	363.9048	97.284
5.60000	4.64293	0.0192	0.0000	1.5175	364.3860	97.414
5.70000	4.36499	0.0180	0.0000	1.5073	364.8362	97.535
5.80000	4.10734	0.0170	0.0000	1.4974	365.2586	97.648
5.90000	3.86834	0.0160	0.0000	1.4878	365.6584	97.754
6.00000	3.64434	0.0151	0.0000	1.4784	366.0319	97.855
6.10000	3.43194	0.0142	0.0000	1.4691	366.3841	97.949
6.20000	3.23771	0.0134	0.0000	1.4607	366.7223	98.039
6.30000	3.06044	0.0127	0.0000	1.4535	367.0381	98.123
6.40000	2.90194	0.0120	0.0000	1.4464	367.3345	98.203
6.50000	2.74622	0.0113	0.0000	1.4394	367.6144	98.278
6.60000	2.60072	0.0107	0.0000	1.4326	367.8861	98.350
6.70000	2.46447	0.0102	0.0000	1.4259	368.1393	98.418
6.80000	2.33734	0.0097	0.0000	1.4194	368.3793	98.482
6.90000	2.21912	0.0092	0.0000	1.4130	368.6070	98.543

7.00000	2.10634	0.0087	0.0000	1.4065	368.8232	98.600
7.10000	2.00150	0.0083	0.0000	1.3997	369.0245	98.656
7.20000	1.90104	0.0079	0.0000	1.3931	369.2217	98.707
7.30000	1.80454	0.0075	0.0000	1.3862	369.4149	98.753
7.40000	1.72142	0.0071	0.0000	1.3795	369.5944	98.804
7.50000	1.64179	0.0068	0.0000	1.3740	369.7542	98.849
7.60000	1.56457	0.0065	0.0000	1.3684	369.9145	98.888
7.70000	1.49021	0.0062	0.0000	1.3633	370.0673	98.933
7.80000	1.42370	0.0059	0.0000	1.3582	370.2131	98.972
7.90000	1.36012	0.0056	0.0000	1.3532	370.3572	99.009
8.00000	1.29814	0.0054	0.0000	1.3484	370.4850	99.045
8.10000	1.24054	0.0051	0.0000	1.3437	370.6119	99.079
8.20000	1.18644	0.0049	0.0000	1.3391	370.7332	99.111
8.30000	1.13457	0.0047	0.0000	1.3347	370.8493	99.142
8.40000	1.08541	0.0045	0.0000	1.3303	370.9672	99.172
8.50000	1.03944	0.0043	0.0000	1.3261	371.0865	99.200
8.60000	0.99549	0.0041	0.0000	1.3220	371.1843	99.227
8.70000	0.95441	0.0039	0.0000	1.3180	371.2654	99.253
8.80000	0.91574	0.0038	0.0000	1.3140	371.3502	99.274
8.90000	0.87771	0.0036	0.0000	1.3102	371.4448	99.302
9.00000	0.84024	0.0035	0.0000	1.3065	371.5344	99.325
9.10000	0.80444	0.0033	0.0000	1.3028	371.6173	99.347
9.20000	0.77044	0.0032	0.0000	1.2993	371.6964	99.369
9.30000	0.74444	0.0031	0.0000	1.2954	371.7727	99.389
9.40000	0.71744	0.0030	0.0000	1.2924	371.8454	99.408
9.50000	0.68944	0.0028	0.0000	1.2891	371.9162	99.427
9.60000	0.66314	0.0027	0.0000	1.2858	371.9848	99.445
9.70000	0.63811	0.0026	0.0000	1.2826	372.0484	99.463
9.80000	0.61423	0.0025	0.0000	1.2795	372.1114	99.479
9.90000	0.59145	0.0024	0.0000	1.2765	372.1717	99.494
10.00000	0.56972	0.0024	0.0000	1.2735	372.2298	99.511
10.10000	0.54897	0.0023	0.0000	1.2706	372.2847	99.526
10.20000	0.52914	0.0022	0.0000	1.2677	372.3394	99.540
10.30000	0.51023	0.0021	0.0000	1.2649	372.3915	99.554
10.40000	0.49214	0.0020	0.0000	1.2622	372.4417	99.568
10.50000	0.47484	0.0020	0.0000	1.2595	372.4890	99.581
10.60000	0.45830	0.0019	0.0000	1.2568	372.5347	99.593
10.70000	0.44244	0.0018	0.0000	1.2543	372.5817	99.605
10.80000	0.42731	0.0018	0.0000	1.2518	372.6252	99.617
10.90000	0.41279	0.0017	0.0000	1.2493	372.6672	99.629
11.00000	0.39889	0.0016	0.0000	1.2469	372.7077	99.639
11.10000	0.38556	0.0016	0.0000	1.2445	372.7470	99.649
11.20000	0.37279	0.0015	0.0000	1.2422	372.7849	99.660
11.30000	0.36054	0.0015	0.0000	1.2399	372.8215	99.669
11.40000	0.34879	0.0014	0.0000	1.2377	372.8570	99.679
11.50000	0.33751	0.0014	0.0000	1.2355	372.8913	99.688
11.60000	0.32664	0.0013	0.0000	1.2333	372.9245	99.697
11.70000	0.31629	0.0013	0.0000	1.2312	372.9567	99.705
11.80000	0.30640	0.0013	0.0000	1.2291	372.9871	99.714
11.90000	0.29670	0.0012	0.0000	1.2270	373.0179	99.722
12.00000	0.28744	0.0012	0.0000	1.2250	373.0471	99.730

VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, U.S.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2424.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2900.0  
DEGREES FAHRENHEIT = 4780.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 14.05 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 7074.10 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 2251.76 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.095 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 105.933 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 17.001 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.9991 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.2491 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 401.01 WATT/CM<sup>2</sup> OR 4.110070E+09 ERG/SEC/CM<sup>2</sup> OR 2.55410E+02 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 244.00 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: W = B \* TEM.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2424.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 2900.0  
DEGREES FAHRENHEIT = 4780.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPO. M PER ANTON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	4.94412	0.0149	0.0000	14.1724	0.1541	0.038
0.35500	5.46862	0.0215	0.0000	13.9724	0.1797	0.045
0.36000	6.11794	0.0303	0.0000	13.7747	0.2099	0.052
0.36500	6.91451	0.0426	0.0000	13.5810	0.2440	0.061
0.37000	7.87124	0.0589	0.0000	13.3914	0.2823	0.070
0.37500	9.00041	0.0804	0.0000	13.2074	0.3253	0.081
0.38000	10.31423	0.0983	0.0000	13.0296	0.3733	0.093
0.38500	11.82242	0.0925	0.0000	12.8580	0.4266	0.104
0.39000	13.53135	0.0670	0.0000	12.6920	0.4857	0.121
0.39500	15.44193	0.0514	0.0000	12.5320	0.5509	0.137
0.40000	17.56461	0.0369	4.0000	12.3780	0.6226	0.155
0.40500	19.90391	0.0263	8.9561	12.2304	0.7011	0.175
0.41000	22.47400	0.0184	14.6701	12.0885	0.7874	0.194
0.41500	25.27615	0.0131	20.2449	11.9527	0.8812	0.220
0.42000	28.32313	0.0090	27.8213	11.8233	0.9833	0.245
0.42500	31.62713	0.0072	114.2888	11.6995	1.0940	0.271
0.43000	35.287179	0.0062	194.1887	11.5818	1.2137	0.301
0.43500	39.30331	0.0055	304.2011	11.4699	1.3424	0.335
0.44000	43.671696	0.0049	450.4973	11.3637	1.4808	0.370
0.44500	48.391174	0.0043	609.4740	11.2627	1.6291	0.407
0.45000	53.46452	0.0038	844.9557	11.1663	1.7871	0.447
0.45500	58.89383	0.0034	1153.4920	11.0741	1.9547	0.489
0.46000	64.67004	0.0030	1534.9301	10.9854	2.1406	0.535
0.46500	70.79546	0.0027	2016.5970	10.8997	2.3449	0.581
0.47000	77.264109	0.0024	2633.2604	10.8169	2.5685	0.635
0.47500	84.08351	0.0021	3435.0830	10.7363	2.8106	0.689
0.48000	91.25270	0.0018	4510.4555	10.6580	3.0806	0.747
0.48500	98.780612	0.0016	5702.6717	10.5820	3.3819	0.809
0.49000	106.66417	0.0013	7119.1256	10.5083	3.7066	0.873
0.49500	114.90313	0.0011	8814.1714	10.4369	4.0567	0.941
0.50000	123.50318	0.0009	10921.4417	10.3677	4.4342	1.013
0.50500	132.45242	0.0008	13000.4901	10.2997	4.8400	1.088
0.51000	141.75242	0.0007	15139.1451	10.2330	5.2767	1.167
0.51500	151.40335	0.0006	17401.7051	10.1677	5.7462	1.249
0.52000	161.40945	0.0005	19819.8231	10.1038	6.2517	1.334
0.52500	171.76314	0.0004	22406.1498	10.0413	6.7974	1.424
0.53000	182.46402	0.0003	25141.5701	9.9801	7.3785	1.517
0.53500	193.51224	0.0003	28015.1051	9.9201	7.9985	1.614
0.54000	204.90333	0.0002	31013.9201	9.8614	8.6599	1.714
0.54500	216.63843	0.0002	34140.6172	9.8041	9.3674	1.817
0.55000	228.72224	0.0002	37400.0632	9.7481	10.1147	1.924
0.55500	241.15319	0.0001	40800.7841	9.6934	10.9047	2.035
0.56000	253.94414	0.0001	44349.4402	9.6401	11.7407	2.150
0.56500	267.09197	0.0001	48050.0000	9.5881	12.6172	2.269
0.57000	280.60343	0.0001	51901.9407	9.5374	13.5385	2.410

0.57500	114.42545	0.47800	46385.9142	4.6749	19.2216	7.569
0.58000	110.04859	0.4145	45118.3414	4.6540	19.2455	7.584
0.58500	111.41471	0.4090	43022.074	4.6410	19.1281	7.594
0.59000	114.41105	0.4021	40111.1491	4.6042	19.4029	7.607
0.59500	120.14722	0.4051	44800.7141	4.6147	12.4024	1.115
0.60000	123.44704	0.4070	43015.2714	4.6234	12.1017	1.267
0.60500	124.21911	0.4040	45015.2169	4.6112	11.7279	1.421
0.61000	124.21911	0.4011	44544.1447	4.6131	14.1700	1.544
0.61500	130.27174	0.4000	40047.1447	4.6141	15.0174	1.744
0.62000	131.41147	0.4145	35677.5244	4.6141	15.7477	1.917
0.62500	134.21657	0.4111	30412.4540	4.6133	16.4070	4.090
0.63000	140.24104	0.4135	25844.1744	4.6144	17.1094	4.247
0.63500	141.51150	0.4050	21441.1447	4.6147	17.4352	4.444
0.64000	144.24441	0.4040	17844.4911	4.6136	18.5771	4.631
0.64500	150.01774	0.4041	14111.1447	4.6141	19.1344	4.822
0.65000	151.25214	0.4041	11144.4277	4.6150	20.1094	5.015
0.65500	154.43704	0.4041	8700.1447	4.6141	21.4000	5.212
0.66000	159.44704	0.4041	6749.4447	4.6144	21.7057	5.411
0.66500	162.71414	0.4147	5071.4110	4.6145	22.5271	5.714
0.67000	165.40401	0.4147	3471.4447	4.6140	23.1417	5.824
0.67500	168.45742	0.4040	2444.0974	4.6134	24.2145	6.030
0.68000	171.47324	0.4040	2031.2424	4.6144	25.0421	6.254
0.68500	174.44070	0.4041	1414.4122	4.6144	25.7417	6.474
0.69000	177.74574	0.4041	1017.4719	4.6143	26.4401	6.694
0.69500	180.44004	0.4040	711.4474	4.6143	27.1707	6.924
0.70000	183.13112	0.4040	519.4015	4.6141	28.6954	7.154
0.70500	184.13447	0.4040	372.4044	4.6141	29.4411	7.380
0.71000	189.10012	0.4041	271.4124	4.6140	30.3441	7.627
0.71500	191.41547	0.4041	214.4174	4.6141	31.4421	7.844
0.72000	194.44107	0.4041	144.4174	4.6141	32.5410	8.112
0.72500	197.13104	0.4041	107.4044	4.6141	33.5410	8.360
0.73000	198.47410	0.4041	84.4044	4.6141	34.5410	8.610
0.73500	202.12449	0.4041	64.4044	4.6141	35.5410	8.844
0.74000	204.44774	0.4041	47.4044	4.6141	36.5410	9.121
0.74500	212.04404	0.4041	34.4044	4.6141	37.4417	9.380
0.75000	209.44444	0.4041	24.4044	4.6141	38.4414	9.644
0.75500	211.77144	0.4041	14.4044	4.6141	40.4021	10.177
0.76000	214.25087	0.4041	9.4044	4.6141	42.9911	10.721
0.76500	220.51437	0.4041	4.4044	4.6141	45.2147	11.274
0.77000	224.44474	0.4041	0.4044	4.6141	47.4414	11.841
0.77500	228.40744	0.4041	0.0000	4.6141	49.7441	12.415
0.78000	232.03740	0.4041	0.0000	4.6141	52.1217	12.994
0.78500	214.44417	0.4041	0.0000	4.6141	54.4441	13.580
0.79000	214.44417	0.4041	0.0000	4.6141	56.4441	14.184
0.79500	214.44417	0.4041	0.0000	4.6141	58.4441	14.794
0.80000	214.44417	0.4041	0.0000	4.6141	60.4441	15.407
0.80500	214.44417	0.4041	0.0000	4.6141	62.4441	16.024
0.81000	214.44417	0.4041	0.0000	4.6141	64.4441	16.651
0.81500	214.44417	0.4041	0.0000	4.6141	66.4441	17.281
0.82000	214.44417	0.4041	0.0000	4.6141	68.4441	17.915
0.82500	214.44417	0.4041	0.0000	4.6141	70.4441	18.554
0.83000	214.44417	0.4041	0.0000	4.6141	72.4441	19.194
0.83500	214.44417	0.4041	0.0000	4.6141	74.4441	19.842
0.84000	214.44417	0.4041	0.0000	4.6141	76.4441	20.491
0.84500	214.44417	0.4041	0.0000	4.6141	78.4441	21.141
0.85000	214.44417	0.4041	0.0000	4.6141	80.4441	21.794
0.85500	214.44417	0.4041	0.0000	4.6141	82.4441	22.442
0.86000	214.44417	0.4041	0.0000	4.6141	84.4441	23.094
0.86500	214.44417	0.4041	0.0000	4.6141	86.4441	23.744
0.87000	214.44417	0.4041	0.0000	4.6141	88.4441	24.394
0.87500	214.44417	0.4041	0.0000	4.6141	90.4441	25.042
0.88000	214.44417	0.4041	0.0000	4.6141	92.4441	25.694
0.88500	214.44417	0.4041	0.0000	4.6141	94.4441	26.342
0.89000	214.44417	0.4041	0.0000	4.6141	96.4441	26.994
0.89500	214.44417	0.4041	0.0000	4.6141	98.4441	27.642
0.90000	214.44417	0.4041	0.0000	4.6141	100.4441	28.294
0.90500	214.44417	0.4041	0.0000	4.6141	102.4441	28.942
0.91000	214.44417	0.4041	0.0000	4.6141	104.4441	29.594
0.91500	214.44417	0.4041	0.0000	4.6141	106.4441	30.242
0.92000	214.44417	0.4041	0.0000	4.6141	108.4441	30.894
0.92500	214.44417	0.4041	0.0000	4.6141	110.4441	31.542
0.93000	214.44417	0.4041	0.0000	4.6141	112.4441	32.194
0.93500	214.44417	0.4041	0.0000	4.6141	114.4441	32.842
0.94000	214.44417	0.4041	0.0000	4.6141	116.4441	33.494
0.94500	214.44417	0.4041	0.0000	4.6141	118.4441	34.142
0.95000	214.44417	0.4041	0.0000	4.6141	120.4441	34.794
0.95500	214.44417	0.4041	0.0000	4.6141	122.4441	35.442
0.96000	214.44417	0.4041	0.0000	4.6141	124.4441	36.094
0.96500	214.44417	0.4041	0.0000	4.6141	126.4441	36.742
0.97000	214.44417	0.4041	0.0000	4.6141	128.4441	37.394
0.97500	214.44417	0.4041	0.0000	4.6141	130.4441	38.042
0.98000	214.44417	0.4041	0.0000	4.6141	132.4441	38.694
0.98500	214.44417	0.4041	0.0000	4.6141	134.4441	39.342
0.99000	214.44417	0.4041	0.0000	4.6141	136.4441	39.994
0.99500	214.44417	0.4041	0.0000	4.6141	138.4441	40.642
1.00000	214.44417	0.4041	0.0000	4.6141	140.4441	41.294
1.00500	214.44417	0.4041	0.0000	4.6141	142.4441	41.942
1.01000	214.44417	0.4041	0.0000	4.6141	144.4441	42.594
1.01500	214.44417	0.4041	0.0000	4.6141	146.4441	43.242
1.02000	214.44417	0.4041	0.0000	4.6141	148.4441	43.894
1.02500	214.44417	0.4041	0.0000	4.6141	150.4441	44.542
1.03000	214.44417	0.4041	0.0000	4.6141	152.4441	45.194
1.03500	214.44417	0.4041	0.0000	4.6141	154.4441	45.842
1.04000	214.44417	0.4041	0.0000	4.6141	156.4441	46.494
1.04500	214.44417	0.4041	0.0000	4.6141	158.4441	47.142
1.05000	214.44417	0.4041	0.0000	4.6141	160.4441	47.794
1.05500	214.44417	0.4041	0.0000	4.6141	162.4441	48.442
1.06000	214.44417	0.4041	0.0000	4.6141	164.4441	49.094
1.06500	214.44417	0.4041	0.0000	4.6141	166.4441	49.742
1.07000	214.44417	0.4041	0.0000	4.6141	168.4441	50.394
1.07500	214.44417	0.4041	0.0000	4.6141	170.4441	51.042
1.08000	214.44417	0.4041	0.0000	4.6141	172.4441	51.694
1.08500	214.44417	0.4041	0.0000	4.6141	174.4441	52.342
1.09000	214.44417	0.4041	0.0000	4.6141	176.4441	52.994
1.09500	214.44417	0.4041	0.0000	4.6141	178.4441	53.642
1.10000	214.44417	0.4041	0.0000	4.6141	180.4441	54.294
1.10500	214.44417	0.4041	0.0000	4.6141	182.4441	54.942
1.11000	214.44417	0.4041	0.0000	4.6141	184.4441	55.594
1.11500	214.44417	0.4041	0.0000	4.6141	186.4441	56.242
1.12000	214.44417	0.4041	0.0000	4.6141	188.4441	56.894
1.12500	214.44417	0.4041	0.0000	4.6141	190.4441	57.542
1.13000	214.44417	0.4041	0.0000	4.6141	192.4441	58.194
1.13500	214.44417	0.4041	0.0000	4.6141	194.4441	58.842
1.14000	214.44417	0.4041	0.0000	4.6141	196.4441	59.494
1.14500	214.44417	0.4041	0.0000	4.6141	198.4441	60.142
1.15000	214.44417	0.4041	0.0000	4.6141	200.4441	60.794
1.15500	214.44417	0.4041	0.0000	4.6141	202.4441	61.442
1.16000	214.44417	0.4041	0.0000	4.6141	204.4441	62.094
1.16500	214.44417	0.4041	0.0000	4.6141	206.4441	62.742
1.17000	214.44417	0.4041	0.0000	4.6141	208.4441	63.394
1.17500	214.44417	0.4041	0.0000	4.6141	210.4441	64.042
1.18000	214.44417	0.4041	0.0000	4.6141	212.4441	64.694
1.18500	214.44417	0.4041	0.0000	4.6141	214.4441	65.342
1.19000	214.44417	0.4041	0.0000	4.6141	216.4441	65.994
1.19500	214.44417	0.4041	0.0000	4.6141	218.4441	66.642
1.20000	214.44417	0.4041	0.0000	4.6141	220.4441	67.294
1.20500	214.44417	0.4041	0.0000	4.6141	222.4441	67.942
1.21000	214.44417	0.4041	0.0000	4.6141	224.4441	68.594
1.21500	214.44417	0.4041	0.0000	4.6141	226.4441	69.242
1.22000	214.44417	0.4041	0.0000	4.6141	228.4441	69.894
1.22500	214.44417	0.4041	0.0000	4.6141	230.4441	70.542
1.23000	214.44417	0.4041	0.0000	4.6141	232.4441	71.194
1.23500	214.44417	0.4041	0.0000	4.6141	234.4441	71.842
1.24000	214.44417	0.4041	0.0000	4.6141	236.4441	72.494
1.24500	214.44417	0.4041	0.0000	4.6141	238.4441	73.142
1.25000	214.44417	0.4041	0.0000	4.6141	240.4441	73.794
1.25500	214.44417	0.4041	0.0000	4.6141	242.4441	74.442
1.26000	214.44417	0.4041	0.0000	4.6141	244.4441	75.094
1.26500	214.44417	0.4041	0.0000	4.6141	246.4441	75.742
1.27000	214.44417	0.4041	0.0000	4.6141	248.4441	76.394
1.27500	214.44417					



1.50000	187,28930	0.7092	0.0000	1.412A	217,0391	54.121
1.60000	188,28333	0.6171	0.0000	1.31A8	218,4042	54.554
1.70000	150,52577	0.5709	0.0000	1.304A	240,7121	62,524
1.80000	118,16374	0.5048	0.0000	2.042A	248,9838	64,074
1.90000	119,80972	0.4537	0.0000	2.817A	277,4588	69,240
2.00000	106,81854	0.4085	0.0000	2.700A	288,9774	72,061
2.10000	95,27502	0.3674	0.0000	2.4A7A	299,0773	74,580
2.20000	85,06131	0.3221	0.0000	2.5120	308,0747	76,832
2.30000	74,08800	0.2848	0.0000	2.4389	316,1227	78,832
2.40000	68,08884	0.2578	0.0000	2.18A8	323,1278	80,627
2.50000	61,06184	0.2312	0.0000	2.3004	329,7744	82,234
2.60000	58,86193	0.2077	0.0000	2.7003	335,5604	83,679
2.70000	49,18362	0.1820	0.0000	1.1972	340,7672	84,974
2.80000	48,54714	0.1647	0.0000	1.146A	345,4554	86,148
2.90000	40,28145	0.1424	0.0000	1.0979	349,8931	87,204
3.00000	36,43384	0.1240	0.0000	2.748A	353,5212	88,159
3.10000	31,04687	0.1057	0.0000	2.004A	356,9939	89,024
3.20000	30,03132	0.1137	0.0000	2.004A	360,0939	89,810
3.30000	27,34125	0.1015	0.0000	1.9477	363,1449	90,525
3.40000	24,93709	0.0944	0.0000	1.1331	365,0227	91,174
3.50000	22,74887	0.0881	0.0000	1.2200	368,0044	91,771
3.60000	20,45353	0.0793	0.0000	1.4207	370,1870	92,314
3.70000	19,11814	0.0724	0.0000	1.8420	372,1880	92,817
3.80000	17,55581	0.0665	0.0000	2.415A	374,0144	93,249
3.90000	16,14675	0.0611	0.0000	1.7484	375,7603	93,689
4.00000	14,47363	0.0523	0.0000	1.7672	377,2632	94,074
4.10000	11,72138	0.0440	0.0000	1.2840	378,4720	94,432
4.20000	12,47670	0.0404	0.0000	1.2215	379,6721	94,761
4.30000	11,72819	0.0366	0.0000	1.2351	380,8693	95,065
4.40000	12,46542	0.0341	0.0000	1.4853	382,1644	95,347
4.50000	10,07937	0.0282	0.0000	1.0000	383,1932	95,408
4.60000	2,31256	0.0155	0.0000	1.4573	384,1448	95,850
4.70000	8,70721	0.0110	0.0000	1.2184	385,2678	96,075
4.80000	8,10767	0.0107	0.0000	1.4013	386,1041	96,285
4.90000	7,55829	0.0124	0.0000	1.5901	388,8910	96,480
5.00000	7,05319	0.0267	0.0000	1.6767	387,8211	96,682
5.10000	6,50092	0.0250	0.0000	1.4433	389,1032	96,832
5.20000	6,16884	0.0233	0.0000	1.5517	388,2407	96,991
5.30000	5,77227	0.0219	0.0000	1.4422	389,5373	97,140
5.40000	5,41019	0.0205	0.0000	1.6244	390,0962	97,279
5.50000	5,07482	0.0192	0.0000	1.4174	390,6202	97,410
5.60000	4,74644	0.0181	0.0000	1.5074	391,1122	97,532
5.70000	4,48058	0.0170	0.0000	1.8874	391,5763	97,644
5.80000	4,21540	0.0161	0.0000	1.6874	392,7000	97,756
5.90000	3,94945	0.0150	0.0000	1.5746	392,8141	97,854
6.00000	3,74103	0.0142	0.0000	1.4847	393,8034	97,954
6.10000	3,52874	0.0134	0.0000	1.4611	393,1648	98,045
6.20000	3,31112	0.0124	0.0000	1.4524	393,5007	98,130
6.30000	3,14715	0.0119	0.0000	1.4484	393,8335	98,211
6.40000	2,97544	0.0111	0.0000	1.4371	394,1395	98,287
6.50000	2,81554	0.0107	0.0000	1.4274	394,4290	98,360
6.60000	2,66674	0.0101	0.0000	1.4224	394,7030	98,424
6.70000	2,52627	0.0094	0.0000	1.4154	394,9625	98,483
6.80000	2,39549	0.0091	0.0000	1.4087	395,2086	98,554
6.90000	2,27314	0.0084	0.0000	1.4021	395,4419	98,612

7.00000	2,15825	0.0082	0.0000	1.3954	395,6634	98,667
7.10000	2,04053	0.0074	0.0000	1.3807	395,8735	98,724
7.20000	1,92894	0.0067	0.0000	1.3677	396,0734	98,779
7.30000	1,82481	0.0060	0.0000	1.3573	396,2634	98,817
7.40000	1,72634	0.0057	0.0000	1.3473	396,4444	98,857
7.50000	1,63134	0.0054	0.0000	1.3382	396,6172	98,905
7.60000	1,54234	0.0051	0.0000	1.3294	396,7811	98,946
7.70000	1,45774	0.0048	0.0000	1.3213	396,9374	98,985
7.80000	1,37645	0.0045	0.0000	1.3139	397,0870	99,022
7.90000	1,29817	0.0043	0.0000	1.3074	397,2294	99,054
8.00000	1,22287	0.0040	0.0000	1.3019	397,3654	99,089
8.10000	1,15044	0.0038	0.0000	1.2973	397,4953	99,124
8.20000	1,08134	0.0036	0.0000	1.2934	397,6195	99,159
8.30000	1,01615	0.0034	0.0000	1.2894	397,7382	99,189
8.40000	9,54117	0.0032	0.0000	1.2842	397,8518	99,213
8.50000	8,96333	0.0030	0.0000	1.2790	397,9605	99,240
8.60000	8,38800	0.0028	0.0000	1.2737	398,0647	99,264
8.70000	7,81469	0.0026	0.0000	1.2684	398,1644	99,291
8.80000	7,24316	0.0024	0.0000	1.2632	398,2600	99,315
8.90000	6,67341	0.0022	0.0000	1.2580	398,3517	99,334
9.00000	6,10592	0.0020	0.0000	1.2528	398,4397	99,360
9.10000	5,54155	0.0018	0.0000	1.2477	398,5241	99,381
9.20000	4,97973	0.0016	0.0000	1.2427	398,6051	99,401
9.30000	4,42093	0.0014	0.0000	1.2377	398,6810	99,420
9.40000	3,86567	0.0012	0.0000	1.2327	398,7534	99,439
9.50000	3,31342	0.0010	0.0000	1.2277	398,8227	99,457
9.60000	2,76469	0.0008	0.0000	1.2227	398,8940	99,474
9.70000	2,21981	0.0006	0.0000	1.2177	398,9654	99,491
9.80000	1,67832	0.0004	0.0000	1.2127	399,0364	99,507
9.90000	1,14077	0.0002	0.0000	1.2077	399,1070	99,522
10.00000	0,60745	0.0001	0.0000	1.2027	399,1784	99,537
10.10000	0,07825	0.0000	0.0000	1.1977	399,2494	99,551
10.20000	0,05122	0.0000	0.0000	1.1927	399,3204	99,565
10.30000	0,02674	0.0000	0.0000	1.1877	399,3914	99,574
10.40000	0,00315	0.0000	0.0000	1.1827	399,4624	99,591
10.50000	0,00114	0.0000	0.0000	1.1777	399,5334	99,603
10.60000	0,00017	0.0000	0.0000	1.1727	399,6044	99,615
10.70000	0,00017	0.0000	0.0000	1.1677	399,6754	99,627
10.80000	0,00016	0.0000	0.0000	1.1627	399,7464	99,638
10.90000	0,00015	0.0000	0.0000	1.1577	399,8174	99,649
11.00000	0,00015	0.0000	0.0000	1.1527	399,8884	99,659
11.10000	0,00014	0.0000	0.0000	1.1477	399,9594	99,674
11.20000	0,00014	0.0000	0.0000	1.1427	399,7552	99,684
11.30000	0,00013	0.0000	0.0000	1.1377	399,7014	99,697
11.40000	0,00013	0.0000	0.0000	1.1327	399,6474	99,706
11.50000	0,00013	0.0000	0.0000	1.1277	399,5934	99,714
11.60000	0,00012	0.0000	0.0000	1.1227	399,5394	99,722
11.70000	0,00012	0.0000	0.0000	1.1177	399,4854	99,730
11.80000	0,00011	0.0000	0.0000	1.1127	399,4314	99,738
11.90000	0,00011	0.0000	0.0000	1.1077	399,3774	99,745
12.00000	0,00011	0.0000	0.0000	1.1027	399,3234	99,745







VISIBILITY AND OTHER DATA FOR PLANCH RADIATION, MECHANICS DIVISION, U.S.I.C. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2720.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3000.0  
DEGREES FAHRENHEIT = 4940.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 40.79 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 9842.74 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 3012.04 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.1000.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 193.231 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 20.615 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.5960 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.7174 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 450.25 WATT/CM<sup>2</sup> OR 4.50250E+10 ERG/SEC/CM<sup>2</sup> OR 1.00762E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 312.46 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: % CHG. = N \* % CHG. T.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2720.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3000.0  
DEGREES FAHRENHEIT = 4940.0

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT N FOR WILSON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	7.49394	0.0256	0.0000	11.7000	0.2550	0.056
0.35500	9.73113	0.0249	0.0000	11.5071	0.2945	0.065
0.36000	10.15011	0.0225	0.0000	11.1104	0.3444	0.074
0.36500	11.18002	0.0344	0.0000	11.1370	0.4002	0.087
0.37000	12.40604	0.0406	0.0000	12.0504	0.4644	0.100
0.37500	14.11221	0.0451	0.0000	12.7667	0.5274	0.115
0.38000	15.42707	0.0500	0.0000	12.6184	0.6017	0.131
0.38500	17.24504	0.0551	0.0000	12.6514	0.6836	0.149
0.39000	19.04745	0.0606	0.0000	12.7440	0.7743	0.169
0.39500	20.70614	0.0664	0.0000	12.1393	0.8747	0.190
0.40000	22.72623	0.0726	0.0000	11.0474	0.9824	0.214
0.40500	24.78427	0.0792	11.4714	11.4552	1.1011	0.240
0.41000	26.94935	0.0860	21.9477	11.4543	1.2302	0.268
0.41500	28.14820	0.0932	41.6207	11.4164	1.3744	0.298
0.42000	31.51321	0.1007	85.7159	11.7425	1.5220	0.331
0.42500	33.97205	0.1084	145.4392	11.1511	1.6612	0.367
0.43000	36.54667	0.1164	248.1455	11.0732	1.8447	0.405
0.43500	39.14831	0.1253	447.8015	10.8974	2.0512	0.447
0.44000	41.94155	0.1341	656.2744	10.7755	2.2541	0.491
0.44500	44.82225	0.1433	883.8984	10.4554	2.4710	0.538
0.45000	47.77804	0.1527	1234.5444	10.5187	2.7024	0.582
0.45500	50.80630	0.1625	1658.9704	10.4222	2.9449	0.629
0.46000	53.94617	0.1725	2201.7381	10.3122	3.2100	0.676
0.46500	57.16854	0.1828	2877.7296	10.2025	3.4887	0.724
0.47000	60.48927	0.1934	3743.5103	10.0952	3.7829	0.771
0.47500	63.84384	0.2042	4865.3935	9.9900	4.0914	0.819
0.48000	67.34745	0.2153	6365.7003	9.8871	4.4219	0.869
0.48500	70.94897	0.2266	8145.9875	9.7463	4.7674	0.919
0.49000	74.64887	0.2381	10515.7200	9.6074	5.1304	0.969
0.49500	78.14844	0.2494	13712.1525	9.4907	5.5124	1.019
0.50000	81.44894	0.2617	17494.4875	9.4007	5.9125	1.069
0.50500	85.44751	0.2734	21711.4161	9.2544	6.3314	1.119
0.51000	89.51482	0.2844	26417.4444	9.1077	6.7693	1.169
0.51500	93.40107	0.2944	30416.1091	9.1114	7.2246	1.219
0.52000	97.13200	0.3111	44902.3252	9.2211	7.7034	1.269
0.52500	101.30344	0.3238	54626.8151	9.1343	8.2000	1.319
0.53000	104.10901	0.3364	61727.9271	9.0482	8.7145	1.369
0.53500	109.34541	0.3495	49034.4400	8.9634	9.2442	1.419
0.54000	113.40051	0.3625	73570.4264	8.8809	9.7893	1.469
0.54500	117.40467	0.3755	74298.4440	8.7994	10.3473	1.519
0.55000	121.59472	0.3887	82273.6943	8.7194	10.9150	1.569
0.55500	125.71693	0.4014	85447.5145	8.4412	11.4013	1.619
0.56000	129.84524	0.4150	87453.2911	8.5461	12.2477	1.669
0.56500	133.97065	0.4282	89192.9349	8.4484	12.9016	1.719
0.57000	138.11625	0.4414	89410.9337	8.4141	13.4420	1.769











1.50000	221.09561	0.4929	0.0000	1.2859	282.6144	97.602
1.60000	187.88832	0.5812	0.0000	1.1109	183.5470	81.872
1.70000	175.28464	0.5156	0.0000	2.0790	122.1874	65.867
1.80000	155.18464	0.4571	0.0000	2.4259	118.7012	60.033
1.90000	137.72014	0.4053	0.0000	2.7084	115.1810	55.017
2.00000	129.11801	0.3598	0.0000	2.9408	108.3145	54.882
2.10000	108.40051	0.3190	0.0000	2.5117	177.8274	77.004
2.20000	98.16287	0.2834	0.0000	2.8284	188.0526	78.792
2.30000	85.89933	0.2525	0.0000	2.1514	197.1854	80.984
2.40000	74.55654	0.2251	0.0000	2.2544	405.2577	82.594
2.50000	68.43902	0.2014	0.0000	2.2236	412.4984	84.074
2.60000	61.30967	0.1804	0.0000	2.1673	418.0785	85.395
2.70000	55.03927	0.1497	0.0000	2.1154	424.7493	86.979
2.80000	49.51529	0.1470	0.0000	2.0682	430.0112	87.844
2.90000	44.63877	0.1114	0.0000	2.0244	434.7140	88.802
3.00000	40.32852	0.1147	0.0000	1.9840	438.9580	89.467
3.10000	36.50854	0.1074	0.0000	1.9465	442.7940	90.249
3.20000	33.11701	0.0979	0.0000	1.9117	446.2740	90.944
3.30000	30.09864	0.0886	0.0000	1.8791	449.4119	91.602
3.40000	27.40972	0.0807	0.0000	1.8490	452.3034	92.187
3.50000	25.00472	0.0736	0.0000	1.8207	454.9234	92.721
3.60000	22.85580	0.0673	0.0000	1.7942	457.3184	93.209
3.70000	20.92464	0.0614	0.0000	1.7692	459.5019	93.654
3.80000	19.19311	0.0564	0.0000	1.7454	461.5768	94.063
3.90000	17.63211	0.0519	0.0000	1.7237	463.5483	94.438
4.00000	16.22447	0.0477	0.0000	1.7034	465.5180	94.781
4.10000	14.95217	0.0440	0.0000	1.6844	467.4857	95.100
4.20000	13.80044	0.0404	0.0000	1.6664	469.4524	95.393
4.30000	12.75402	0.0375	0.0000	1.6497	471.4194	95.661
4.40000	11.81731	0.0347	0.0000	1.6349	473.3864	95.914
4.50000	10.98411	0.0322	0.0000	1.6214	475.3534	96.161
4.60000	10.25752	0.0299	0.0000	1.6094	477.3204	96.394
4.70000	9.63947	0.0278	0.0000	1.5985	479.2874	96.614
4.80000	9.12329	0.0258	0.0000	1.5887	481.2544	96.824
4.90000	8.70251	0.0241	0.0000	1.5797	483.2214	97.024
5.00000	8.37114	0.0225	0.0000	1.5717	485.1884	97.214
5.10000	8.12420	0.0211	0.0000	1.5647	487.1554	97.394
5.20000	7.95144	0.0194	0.0000	1.5587	489.1224	97.564
5.30000	7.84387	0.0183	0.0000	1.5537	491.0894	97.724
5.40000	7.79337	0.0172	0.0000	1.5497	493.0564	97.874
5.50000	7.79842	0.0161	0.0000	1.5467	495.0234	98.014
5.60000	7.85462	0.0151	0.0000	1.5447	496.9904	98.144
5.70000	7.95952	0.0142	0.0000	1.5437	498.9574	98.264
5.80000	8.11844	0.0134	0.0000	1.5437	500.9244	98.374
5.90000	8.32844	0.0126	0.0000	1.5447	502.8914	98.474
6.00000	8.58777	0.0114	0.0000	1.5467	504.8584	98.564
6.10000	8.89300	0.0112	0.0000	1.5497	506.8254	98.644
6.20000	9.24514	0.0105	0.0000	1.5537	508.7924	98.714
6.30000	9.64217	0.0100	0.0000	1.5587	510.7594	98.774
6.40000	1.00204	0.0094	0.0000	1.5647	512.7264	98.824
6.50000	1.19717	0.0089	0.0000	1.5717	514.6934	98.864
6.60000	1.42424	0.0084	0.0000	1.5797	516.6604	98.894
6.70000	2.68264	0.0080	0.0000	1.5887	518.6274	98.914
6.80000	2.71164	0.0074	0.0000	1.5987	520.5944	98.924
6.90000	2.97041	0.0067	0.0000	1.6097	522.5614	98.934
7.00000	2.91822	0.0062	0.0000	1.6217	524.5284	98.944
7.10000	2.31432	0.0058	0.0000	1.6347	526.4954	98.954
7.20000	2.14854	0.0054	0.0000	1.6487	528.4624	98.964
7.30000	2.04930	0.0051	0.0000	1.6637	530.4294	98.974
7.40000	1.94704	0.0048	0.0000	1.6797	532.3964	98.984
7.50000	1.84054	0.0045	0.0000	1.6967	534.3634	98.994
7.60000	1.73510	0.0042	0.0000	1.7147	536.3304	99.004
7.70000	1.63524	0.0040	0.0000	1.7337	538.2974	99.014
7.80000	1.54071	0.0038	0.0000	1.7537	540.2644	99.024
7.90000	1.45147	0.0036	0.0000	1.7747	542.2314	99.034
8.00000	1.36724	0.0034	0.0000	1.7967	544.1984	99.044
8.10000	1.28844	0.0032	0.0000	1.8197	546.1654	99.054
8.20000	1.21477	0.0030	0.0000	1.8437	548.1324	99.064
8.30000	1.14644	0.0028	0.0000	1.8687	550.0994	99.074
8.40000	1.08284	0.0026	0.0000	1.8947	552.0664	99.084
8.50000	1.02344	0.0024	0.0000	1.9217	554.0334	99.094
8.60000	0.96774	0.0022	0.0000	1.9497	556.0004	99.104
8.70000	0.91544	0.0020	0.0000	1.9787	557.9674	99.114
8.80000	0.86624	0.0018	0.0000	2.0087	559.9344	99.124
8.90000	0.82044	0.0016	0.0000	2.0397	561.9014	99.134
9.00000	0.77774	0.0014	0.0000	2.0717	563.8684	99.144
9.10000	0.73777	0.0012	0.0000	2.1047	565.8354	99.154
9.20000	0.69944	0.0010	0.0000	2.1387	567.8024	99.164
9.30000	0.66284	0.0008	0.0000	2.1737	569.7694	99.174
9.40000	0.62784	0.0006	0.0000	2.2097	571.7364	99.184
9.50000	0.59424	0.0004	0.0000	2.2467	573.7034	99.194
9.60000	0.56184	0.0002	0.0000	2.2847	575.6704	99.204
9.70000	0.53044	0.0001	0.0000	2.3237	577.6374	99.214
9.80000	0.50004	0.0000	0.0000	2.3637	579.6044	99.224
9.90000	0.47044	0.0000	0.0000	2.4047	581.5714	99.234
10.00000	0.44144	0.0000	0.0000	2.4467	583.5384	99.244
10.10000	0.41284	0.0000	0.0000	2.4897	585.5054	99.254
10.20000	0.38464	0.0000	0.0000	2.5337	587.4724	99.264
10.30000	0.35684	0.0000	0.0000	2.5787	589.4394	99.274
10.40000	0.32944	0.0000	0.0000	2.6247	591.4064	99.284
10.50000	0.30244	0.0000	0.0000	2.6717	593.3734	99.294
10.60000	0.27584	0.0000	0.0000	2.7197	595.3404	99.304
10.70000	0.24964	0.0000	0.0000	2.7687	597.3074	99.314
10.80000	0.22384	0.0000	0.0000	2.8187	599.2744	99.324
10.90000	0.19844	0.0000	0.0000	2.8697	601.2414	99.334
11.00000	0.17344	0.0000	0.0000	2.9217	603.2084	99.344
11.10000	0.14884	0.0000	0.0000	2.9747	605.1754	99.354
11.20000	0.12464	0.0000	0.0000	3.0287	607.1424	99.364
11.30000	0.10084	0.0000	0.0000	3.0837	609.1094	99.374
11.40000	0.07744	0.0000	0.0000	3.1397	611.0764	99.384
11.50000	0.05444	0.0000	0.0000	3.1967	613.0434	99.394
11.60000	0.03184	0.0000	0.0000	3.2547	615.0104	99.404
11.70000	0.00964	0.0000	0.0000	3.3137	616.9774	99.414
11.80000	0.00744	0.0000	0.0000	3.3737	618.9444	99.424
11.90000	0.00544	0.0000	0.0000	3.4347	620.9114	99.434
12.00000	0.00344	0.0000	0.0000	3.4967	622.8784	99.444

VISIBILITY AND OTHER DATA FOR PLANCH WATTONS, MECHANICS DIVISION, U.S.A. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2272.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3100.0  
DEGREES FAHRENHEIT = 5120.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 48.02 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 12427.71 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 3945.87 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.122.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 194.314 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 23.715 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.9348 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.1741 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 523.61 WATT/CM<sup>2</sup> OR 5.23609E+09 ERG/SEC/CM<sup>2</sup> OR 1.24144E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 345.40 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = K/T<sup>4</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2272.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3100.0  
DEGREES FAHRENHEIT = 5120.9

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K/T <sup>4</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.34000	12.43415	0.0337	0.0000	13.2581	0.4144	0.078
0.35000	13.96110	0.0379	0.0000	13.0714	0.4806	0.092
0.36000	15.41190	0.0428	0.0000	12.8898	0.5544	0.104
0.37000	17.04554	0.0472	0.0000	12.7133	0.6369	0.122
0.38000	18.78663	0.0523	0.0000	12.5415	0.7285	0.139
0.39000	21.11725	0.0578	0.0000	12.3742	0.8300	0.159
0.40000	23.47907	0.0637	0.0000	12.2114	0.9419	0.180
0.41000	25.77731	0.0699	0.0000	12.0529	1.0650	0.203
0.42000	28.20064	0.0765	0.0000	11.8981	1.1999	0.229
0.43000	30.76147	0.0835	0.0000	11.7477	1.3472	0.257
0.44000	33.45549	0.0908	0.0000	11.6009	1.5077	0.288
0.45000	36.28211	0.0984	19.7155	11.4577	1.6820	0.321
0.46000	39.24023	0.1064	32.4202	11.3180	1.8708	0.357
0.47000	42.32814	0.1148	43.3232	11.1817	2.0746	0.394
0.48000	45.54657	0.1236	121.8812	11.0486	2.2943	0.438
0.49000	48.89655	0.1326	242.4728	10.9186	2.5303	0.481
0.50000	52.35141	0.1420	412.9495	10.7919	2.7833	0.532
0.51000	55.91672	0.1518	639.0210	10.6677	3.0540	0.581
0.52000	59.59444	0.1618	932.7459	10.5465	3.3429	0.638
0.53000	63.38494	0.1721	1251.2974	10.4280	3.6506	0.697
0.54000	67.28730	0.1828	1741.0212	10.3122	3.9776	0.760
0.55000	71.30351	0.1937	2330.6758	10.1994	4.3245	0.826
0.56000	75.43334	0.2049	3081.8712	10.0891	4.6914	0.896
0.57000	79.77400	0.2164	4013.4627	9.9819	5.0800	0.970
0.58000	84.32491	0.2281	5202.4991	9.8774	5.4906	1.048
0.59000	89.07491	0.2400	6738.2495	9.7757	5.9209	1.131
0.60000	94.02434	0.2522	8744.2553	9.6768	6.3745	1.219
0.61000	99.17304	0.2646	11206.1948	9.5803	6.8506	1.309
0.62000	104.51304	0.2771	14446.4109	9.4859	7.3497	1.404
0.63000	109.93954	0.2898	18742.3355	9.3937	7.8721	1.503
0.64000	115.45404	0.3027	24507.4753	9.3035	8.4181	1.606
0.65000	121.05829	0.3157	32210.2247	9.2152	8.9880	1.717
0.66000	126.75324	0.3289	41864.8758	9.1287	9.5820	1.836
0.67000	132.53892	0.3422	52185.9083	9.0441	10.2004	1.960
0.68000	138.41622	0.3556	63274.0404	8.9614	10.8444	2.071
0.69000	144.38511	0.3690	73345.8225	8.8800	11.5110	2.198
0.70000	150.44662	0.3825	83450.4728	8.8000	12.2034	2.331
0.71000	156.60170	0.3961	93647.2526	8.7215	12.9211	2.468
0.72000	162.85126	0.4097	103999.0157	8.6444	13.6637	2.610
0.73000	169.29571	0.4234	114508.7301	8.5688	14.4314	2.754
0.74000	175.93544	0.4371	125170.3364	8.4946	15.2243	2.908
0.75000	182.77074	0.4507	135998.5937	8.4219	16.0424	3.064
0.76000	189.80212	0.4644	146997.9615	8.3504	16.8857	3.225
0.77000	196.93004	0.4781	157293.1930	8.2803	17.7540	3.391
0.78000	204.15491	0.4918			18.6475	3.561





VISIBILITY AND OTHER DATA FOR PLANK RADIATOR, MECHANICS DIVISION, D.U.C., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2070.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3190.8  
DEGREES FAHRENHEIT = 3210.8

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 72.28 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 10192.16 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 6574.76 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.129.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 105,900 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 25,352 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.9200 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.1598 MICRONS.  
I.E., THIS WAVELENGTHS THE RATIO OF SPECTRAL RADIANT INTENSITY TO TOTAL RADIANT INTENSITY.

THE TOTAL POWER RADIATED IS 450.22 WATT/CM<sup>2</sup> OR 5658210000 ERG/SEC/CM<sup>2</sup> OR 1.4351700E11 CAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 392.10 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT INTENSITY \* VISIBILITY FACTOR, WHERE RADIANT INTENSITY IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT INTENSITY CAN BE CALCULATED USING THE TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = R/T<sup>2</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2070.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3190.8  
DEGREES FAHRENHEIT = 3210.8

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR W/T <sup>2</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	15.14000	0.0394	0.0000	13.0876	0.5220	0.094
0.35500	17.14700	0.0437	0.0000	12.8839	0.6012	0.108
0.36000	19.15400	0.0480	0.0000	12.6852	0.6900	0.124
0.36500	21.16200	0.0531	0.0000	12.4915	0.7891	0.142
0.37000	23.17000	0.0580	0.0000	12.3024	0.9070	0.162
0.37500	25.17800	0.0630	0.0000	12.1174	1.0307	0.185
0.38000	27.18600	0.0678	0.0000	11.9364	1.1607	0.209
0.38500	29.19400	0.0729	0.0000	11.7595	1.3159	0.234
0.39000	31.20200	0.0781	0.0000	11.5865	1.4790	0.265
0.39500	33.21000	0.0832	0.0000	11.4163	1.6568	0.297
0.40000	35.21800	0.0883	0.0000	11.2488	1.8500	0.331
0.40500	37.22600	0.0934	0.0000	11.0840	2.0592	0.369
0.41000	39.23400	0.0985	0.0000	10.9214	2.2854	0.409
0.41500	41.24200	0.1036	0.0000	10.7614	2.5291	0.453
0.42000	43.25000	0.1087	0.0000	10.6032	2.7911	0.500
0.42500	45.25800	0.1138	0.0000	10.4464	3.0721	0.550
0.43000	47.26600	0.1189	0.0000	10.2914	3.3727	0.604
0.43500	49.27400	0.1240	0.0000	10.1374	3.6934	0.662
0.44000	51.28200	0.1291	0.0000	9.9844	4.0355	0.721
0.44500	53.29000	0.1342	0.0000	9.8324	4.3999	0.780
0.45000	55.29800	0.1393	0.0000	9.6814	4.7864	0.857
0.45500	57.30600	0.1444	0.0000	9.5314	5.1927	0.930
0.46000	59.31400	0.1495	0.0000	9.3824	5.6202	1.008
0.46500	61.32200	0.1546	0.0000	9.2344	6.0704	1.089
0.47000	63.33000	0.1597	0.0000	9.0874	6.5438	1.175
0.47500	65.33800	0.1648	0.0000	8.9414	7.0409	1.265
0.48000	67.34600	0.1699	0.0000	8.7964	7.5619	1.358
0.48500	69.35400	0.1750	0.0000	8.6524	8.1069	1.455
0.49000	71.36200	0.1801	0.0000	8.5094	8.6759	1.558
0.49500	73.37000	0.1852	0.0000	8.3674	9.2689	1.672
0.50000	75.37800	0.1903	0.0000	8.2264	9.8959	1.794
0.50500	77.38600	0.1954	0.0000	8.0864	10.5569	1.924
0.51000	79.39400	0.2005	0.0000	7.9474	11.2519	2.072
0.51500	81.40200	0.2056	0.0000	7.8094	11.9809	2.155
0.52000	83.41000	0.2107	0.0000	7.6724	12.7439	2.287
0.52500	85.41800	0.2158	0.0000	7.5364	13.5409	2.455
0.53000	87.42600	0.2209	0.0000	7.4014	14.3729	2.568
0.53500	89.43400	0.2260	0.0000	7.2674	15.2399	2.715
0.54000	91.44200	0.2311	0.0000	7.1344	16.1419	2.860
0.54500	93.45000	0.2362	0.0000	7.0024	17.0789	3.026
0.55000	95.45800	0.2413	0.0000	6.8714	18.0509	3.188
0.55500	97.46600	0.2464	0.0000	6.7414	19.0569	3.356
0.56000	99.47400	0.2515	0.0000	6.6124	20.0969	3.522
0.56500	101.48200	0.2566	0.0000	6.4844	21.1709	3.705
0.57000	103.49000	0.2617	0.0000	6.3574	22.2789	3.884



1.50000	244.10824	0.4169	0.0000	1.1967	333.4135	59.764
1.60000	218.14561	0.5861	0.0000	1.0786	346.8041	63.919
1.70000	192.41879	0.4874	0.0000	2.6827	377.1175	67.591
1.80000	170.01314	0.4258	0.0000	2.7550	385.4249	70.838
1.90000	150.11657	0.1844	0.0000	2.6424	411.4114	73.702
2.00000	132.48967	0.1323	0.0000	2.5425	425.5356	76.231
2.10000	117.43874	0.2941	0.0000	2.4514	438.0248	78.469
2.20000	104.12312	0.2608	0.0000	2.3735	449.0878	80.451
2.30000	92.40992	0.2317	0.0000	2.3015	458.0958	82.209
2.40000	82.14865	0.2082	0.0000	2.2403	467.4369	83.773
2.50000	73.47139	0.1840	0.0000	2.1771	475.4181	85.167
2.60000	65.70244	0.1645	0.0000	2.1230	482.1683	86.412
2.70000	58.48660	0.1475	0.0000	2.0734	488.5904	87.527
2.80000	52.49700	0.1325	0.0000	2.0270	494.1732	88.527
2.90000	47.42272	0.1193	0.0000	1.9850	499.1934	89.427
3.00000	42.84845	0.1074	0.0000	1.9471	503.1744	90.237
3.10000	38.45239	0.0973	0.0000	1.9112	507.4052	90.969
3.20000	34.20435	0.0887	0.0000	1.8778	511.5044	91.632
3.30000	31.04802	0.0801	0.0000	1.8464	514.8587	92.233
3.40000	28.07961	0.0724	0.0000	1.8176	517.9091	92.779
3.50000	24.50449	0.0644	0.0000	1.7904	520.6880	93.277
3.60000	24.20625	0.0606	0.0000	1.7649	523.2195	93.731
3.70000	22.14568	0.0555	0.0000	1.7410	525.5352	94.145
3.80000	20.29607	0.0504	0.0000	1.7184	527.6556	94.525
3.90000	18.63254	0.0467	0.0000	1.6972	529.4806	94.874
4.00000	17.13349	0.0429	0.0000	1.6772	531.1876	95.194
4.10000	15.78011	0.0395	0.0000	1.6582	533.0322	95.489
4.20000	14.55601	0.0365	0.0000	1.6401	534.5480	95.760
4.30000	13.44684	0.0337	0.0000	1.6231	535.8472	96.011
4.40000	12.44014	0.0312	0.0000	1.6071	537.2408	96.242
4.50000	11.52491	0.0289	0.0000	1.5918	538.4141	96.457
4.60000	10.69142	0.0268	0.0000	1.5772	539.5485	96.656
4.70000	9.93114	0.0249	0.0000	1.5631	540.5700	96.848
4.80000	9.23670	0.0231	0.0000	1.5500	541.5349	97.012
4.90000	8.60113	0.0215	0.0000	1.5371	542.4241	97.172
5.00000	8.01820	0.0201	0.0000	1.5252	543.2549	97.321
5.10000	7.48510	0.0187	0.0000	1.5137	544.0338	97.459
5.20000	6.99639	0.0175	0.0000	1.5026	544.7574	97.588
5.30000	6.54294	0.0164	0.0000	1.4919	545.4139	97.710
5.40000	6.12204	0.0153	0.0000	1.4817	546.0672	97.824
5.50000	5.73451	0.0144	0.0000	1.4720	546.6804	97.930
5.60000	5.38930	0.0135	0.0000	1.4626	547.2148	98.038
5.70000	5.08181	0.0127	0.0000	1.4535	547.7192	98.123
5.80000	4.79867	0.0119	0.0000	1.4444	548.2100	98.211
5.90000	4.47774	0.0112	0.0000	1.4354	548.6817	98.294
6.00000	4.21714	0.0104	0.0000	1.4264	549.1242	98.372
6.10000	3.97514	0.0100	0.0000	1.4174	549.5387	98.445
6.20000	3.75015	0.0094	0.0000	1.4084	549.9218	98.514
6.30000	3.54074	0.0089	0.0000	1.4011	550.2818	98.579
6.40000	3.34574	0.0084	0.0000	1.3944	550.6105	98.641
6.50000	3.16149	0.0079	0.0000	1.3881	550.9554	98.699
6.60000	2.99414	0.0075	0.0000	1.3825	551.2617	98.755
6.70000	2.83544	0.0071	0.0000	1.3762	551.5551	98.807
6.80000	2.68741	0.0067	0.0000	1.3701	551.8311	98.856
6.90000	2.54871	0.0064	0.0000	1.3672	552.0929	98.901
7.00000	2.41841	0.0061	0.0000	1.3614	552.3412	98.948
7.10000	2.29704	0.0058	0.0000	1.3554	552.5769	98.990
7.20000	2.18282	0.0055	0.0000	1.3504	552.8008	99.030
7.30000	2.07544	0.0052	0.0000	1.3452	553.0117	99.068
7.40000	1.97482	0.0049	0.0000	1.3401	553.2142	99.104
7.50000	1.88000	0.0047	0.0000	1.3352	553.4089	99.139
7.60000	1.79094	0.0045	0.0000	1.3303	553.5924	99.172
7.70000	1.70761	0.0043	0.0000	1.3257	553.7672	99.203
7.80000	1.62992	0.0041	0.0000	1.3211	553.9316	99.233
7.90000	1.55515	0.0039	0.0000	1.3167	554.0910	99.261
8.00000	1.48294	0.0037	0.0000	1.3124	554.2447	99.289
8.10000	1.41264	0.0035	0.0000	1.3082	554.3887	99.315
8.20000	1.34377	0.0034	0.0000	1.3042	554.5242	99.339
8.30000	1.27663	0.0032	0.0000	1.3002	554.6605	99.363
8.40000	1.21051	0.0031	0.0000	1.2963	554.7872	99.384
8.50000	1.14517	0.0030	0.0000	1.2924	554.9043	99.407
8.60000	1.08017	0.0028	0.0000	1.2889	555.0243	99.428
8.70000	1.01594	0.0027	0.0000	1.2853	555.1354	99.446
8.80000	0.95297	0.0026	0.0000	1.2818	555.2418	99.467
8.90000	0.89067	0.0025	0.0000	1.2784	555.3438	99.485
9.00000	0.82834	0.0024	0.0000	1.2751	555.4417	99.503
9.10000	0.76617	0.0023	0.0000	1.2718	555.5356	99.520
9.20000	0.70419	0.0022	0.0000	1.2686	555.6257	99.534
9.30000	0.64244	0.0021	0.0000	1.2655	555.7122	99.551
9.40000	0.58084	0.0020	0.0000	1.2625	555.7954	99.566
9.50000	0.51937	0.0020	0.0000	1.2595	555.8752	99.581
9.60000	0.45791	0.0019	0.0000	1.2566	555.9521	99.594
9.70000	0.39645	0.0018	0.0000	1.2536	556.0259	99.608
9.80000	0.33499	0.0017	0.0000	1.2510	556.0970	99.620
9.90000	0.27353	0.0017	0.0000	1.2483	556.1654	99.633
10.00000	0.21207	0.0016	0.0000	1.2457	556.2312	99.644
10.10000	0.15061	0.0016	0.0000	1.2431	556.2947	99.656
10.20000	0.08915	0.0015	0.0000	1.2405	556.3558	99.667
10.30000	0.02769	0.0014	0.0000	1.2380	556.4147	99.677
10.40000	0.00623	0.0014	0.0000	1.2356	556.4714	99.687
10.50000	0.00000	0.0013	0.0000	1.2332	556.5263	99.697
10.60000	0.00000	0.0013	0.0000	1.2308	556.5791	99.707
10.70000	0.00000	0.0012	0.0000	1.2285	556.6301	99.716
10.80000	0.00000	0.0012	0.0000	1.2263	556.6793	99.725
10.90000	0.00000	0.0012	0.0000	1.2241	556.7269	99.731
11.00000	0.00000	0.0011	0.0000	1.2219	556.7728	99.741
11.10000	0.00000	0.0011	0.0000	1.2198	556.8171	99.749
11.20000	0.00000	0.0011	0.0000	1.2177	556.8600	99.757
11.30000	0.00000	0.0010	0.0000	1.2154	556.9015	99.765
11.40000	0.00000	0.0010	0.0000	1.2134	556.9416	99.772
11.50000	0.00000	0.0010	0.0000	1.2117	556.9804	99.779
11.60000	0.00000	0.0009	0.0000	1.2099	557.0179	99.785
11.70000	0.00000	0.0009	0.0000	1.2074	557.0542	99.792
11.80000	0.00000	0.0009	0.0000	1.2060	557.0894	99.798
11.90000	0.00000	0.0008	0.0000	1.2041	557.1234	99.804
12.00000	0.00000	0.0008	0.0000	1.2021	557.1564	99.810



VISIBILITY AND OTHER DATA FOR PLANCK RADIATOR, MECHANICS DIVISION, D.N.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 2926.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3200.0  
DEGREES FAHRENHEIT = 5300.8

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 91.23 WA./CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 14092.02 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 5109.52 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.137.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 59.611 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 27.000 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.62054 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.1413 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EXITANCE TO TOTAL RADIANT EXITANCE.

THE TOTAL POWER RADIATED IS 594.51 WATT/CM<sup>2</sup> OR 5.9451E+00 THU/SEC/CM<sup>2</sup> OR 1.42702E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 432.01 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT:  $\pi \times \text{LUMENS PER WATT} \times \text{RADIANT EXITANCE} \times \text{VISIBILITY FACTOR}$ ,  
WHERE RADIANT EXITANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EXITANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta R = R \times M \times \Delta T / T$

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 2926.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3200.0  
DEGREES FAHRENHEIT = 5300.8

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR RATION	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	18.22005	0.0434	0.0000	12.8434	0.6527	0.110
0.35500	21.60782	0.2084	0.0000	12.8429	0.7522	0.127
0.36000	23.15549	0.2241	0.0000	12.8420	0.8630	0.145
0.36500	25.86599	0.2599	0.0000	12.8410	0.9840	0.166
0.37000	28.55074	0.2861	0.0000	12.8404	1.1220	0.189
0.37500	31.18110	0.3122	0.0000	11.8426	1.2717	0.216
0.38000	34.18413	0.3386	0.0000	11.8429	1.4361	0.248
0.38500	37.54195	0.3660	0.0000	11.8462	1.6159	0.279
0.39000	40.90143	0.3947	0.0000	11.8484	1.8120	0.305
0.39500	44.40627	0.4228	0.0000	11.8507	2.0252	0.341
0.40000	48.10714	0.4511	11.0742	11.2384	2.2543	0.380
0.40500	51.80311	0.4791	26.2351	11.0497	2.5000	0.422
0.41000	55.69029	0.5074	45.8645	10.9466	2.7756	0.467
0.41500	59.53243	0.5359	69.8065	10.8323	3.0643	0.516
0.42000	64.32575	0.5640	97.9640	10.7038	3.3742	0.568
0.42500	68.76603	0.5921	131.3544	10.5775	3.7048	0.624
0.43000	74.16462	0.6198	174.5719	10.4545	4.0641	0.684
0.43500	78.10450	0.6467	229.8546	10.3344	4.4626	0.747
0.44000	82.92024	0.6719	294.8732	10.2170	4.8650	0.815
0.44500	87.89824	0.7035	373.3533	10.1029	5.2720	0.887
0.45000	92.90619	0.7315	460.0247	9.9900	5.7242	0.961
0.45500	98.20847	0.7573	559.5245	9.8803	6.2071	1.033
0.46000	103.52800	0.7822	672.3025	9.7730	6.7064	1.128
0.46500	108.94832	0.8062	802.2705	9.6680	7.2376	1.217
0.47000	114.46259	0.8290	948.9453	9.5659	7.7941	1.311
0.47500	120.06387	0.8509	1104.0644	9.4666	8.3824	1.410
0.48000	125.76510	0.8711	1268.4264	9.3660	8.9969	1.513
0.48500	131.46915	0.8904	1511.1821	9.2694	9.6399	1.621
0.49000	137.11844	0.9170	1742.2193	9.1751	10.3120	1.735
0.49500	143.19704	0.9315	2012.4805	9.0825	11.0132	1.858
0.50000	149.12451	0.9452	2274.4113	8.9917	11.7440	1.979
0.50500	155.10017	0.9580	2525.5237	8.9024	12.5046	2.103
0.51000	161.11044	0.9709	2764.3337	8.8154	13.2951	2.236
0.51500	167.15162	0.9829	2997.1651	8.7302	14.1157	2.370
0.52000	173.21547	0.9940	3225.4297	8.6464	14.9666	2.517
0.52500	179.29561	0.9150	3460.3346	8.5641	15.8479	2.668
0.53000	185.38534	0.9291	3684.5479	8.4835	16.7596	2.819
0.53500	191.47809	0.9432	3911.1768	8.4043	17.7010	2.974
0.54000	197.56746	0.9573	4141.6504	8.3267	18.6744	3.141
0.54500	203.64719	0.9714	4375.1042	8.2504	19.6774	3.310
0.55000	209.71120	0.9854	4610.9071	8.1756	20.7108	3.484
0.55500	215.75340	0.9994	4847.1248	8.1021	21.7745	3.663
0.56000	221.78644	0.9133	5084.4489	8.0300	22.8683	3.847
0.56500	227.79093	0.9272	5316.1062	7.9591	23.9921	4.036
0.57000	233.80502	0.9409	5548.4101	7.8895	25.1458	4.230

0.57500	239.99999	0.5584	189076.9888	7.4211	24.1290	4.429
0.58000	240.00000	0.5682	185207.1420	7.7519	27.5816	4.433
0.58500	241.24819	0.5814	139981.5556	7.4874	25.7834	4.842
0.59000	254.99000	0.5949	132288.4407	7.4229	10.0560	5.055
0.59500	262.47184	0.6080	126118.7143	7.4591	11.3532	5.274
0.60000	264.28715	0.6210	115118.4501	7.4964	12.4896	5.497
0.60500	271.81209	0.6339	105579.0898	7.4167	14.0340	5.726
0.61000	279.10573	0.6468	95533.7317	7.3740	15.4188	5.954
0.61500	284.70107	0.6590	85376.4263	7.3143	16.8749	6.199
0.62000	290.01848	0.6713	75117.9273	7.2557	18.2657	6.437
0.62500	295.25232	0.6834	64867.4756	7.1979	19.7249	6.681
0.63000	100.40061	0.6954	54112.1930	7.1411	41.2141	6.933
0.63500	105.46683	0.7071	43071.4001	7.0852	42.7329	7.188
0.64000	110.43052	0.7184	31941.2322	7.0302	44.2724	7.447
0.64500	115.30769	0.7299	20584.4543	6.9760	45.8340	7.710
0.65000	120.08670	0.7408	23289.7267	6.9227	47.4255	7.977
0.65500	124.77532	0.7514	17888.6244	6.8703	49.0377	8.248
0.66000	129.36264	0.7624	13441.9431	6.8186	50.6731	8.523
0.66500	133.85021	0.7729	10215.4171	6.7677	52.3311	8.802
0.67000	138.23671	0.7829	7360.0304	6.7174	54.0114	9.085
0.67500	142.52091	0.7929	5357.0270	6.6683	55.7133	9.371
0.68000	146.70142	0.8024	4007.8711	6.6197	57.4364	9.661
0.68500	150.77854	0.8120	2818.5903	6.5719	59.1802	9.954
0.69000	154.75047	0.8217	1878.0884	6.5246	60.9447	10.251
0.69500	158.61691	0.8310	1349.9991	6.4781	62.7275	10.551
0.70000	162.37744	0.8404	1010.3081	6.4323	64.5300	10.854
0.70500	166.03174	0.8493	721.8146	6.3872	66.3511	11.161
0.71000	169.57961	0.8585	527.7547	6.3427	68.1902	11.470
0.71500	173.02102	0.8675	340.4814	6.2988	70.1467	11.782
0.72000	176.35594	0.8762	261.5143	6.2554	71.9202	12.097
0.72500	179.58454	0.8846	180.4822	6.2130	73.4101	12.415
0.73000	182.70707	0.8929	110.1204	6.1710	75.1158	12.736
0.73500	185.72384	0.9010	104.8149	6.1294	77.4370	13.059
0.74000	188.63531	0.9084	79.2414	6.0884	79.5729	13.385
0.74500	191.44197	0.9161	51.2341	6.0484	81.5211	13.713
0.75000	194.14444	0.9243	26.8018	6.0087	83.4872	14.043
0.75500	196.73954	0.9320	0.0000	5.9699	85.4644	14.378
0.76000	403.92694	0.9395	0.0000	5.9351	87.4576	14.710
0.76500	404.51387	0.9469	0.0000	5.9018	89.4636	15.048
0.77000	412.10053	0.9541	0.0000	5.8694	91.4835	15.391
0.77500	415.61997	0.9621	0.0000	5.8374	93.5166	15.739
0.78000	419.74740	0.9699	0.0000	5.8057	95.5635	16.092
0.78500	421.53181	0.9757	0.0000	5.7744	97.6334	16.450
0.79000	423.95314	0.9811	0.0000	5.7435	99.7275	16.813
0.79500	424.03270	0.9862	0.0000	5.7130	101.8467	17.181
0.80000	427.78144	0.9902	0.0000	5.6834	103.9917	17.554
0.80500	429.21161	0.9935	0.0000	5.6545	106.1647	17.932
0.81000	430.33413	0.9961	0.0000	5.6261	108.3669	18.315
0.81500	431.14097	0.9980	0.0000	5.5984	110.5984	18.703
0.82000	431.70188	0.9993	0.0000	5.5714	112.8594	19.096
0.82500	431.97444	0.9999	0.0000	5.5450	115.1504	19.494
0.83000	431.98472	0.9999	0.0000	5.5194	117.4714	19.897
0.83500	431.74585	0.9994	0.0000	5.4945	119.8224	20.305
0.84000	431.26934	0.9983	0.0000	5.4705	122.2034	20.718
0.84500	431.56640	0.9967	0.0000	5.4474	124.6144	21.136
0.85000	429.84824	0.9945	0.0000	5.4251	127.0554	21.559
0.85500	428.52452	0.9919	0.0000	5.4034	129.5264	21.987
0.86000	427.20444	0.9889	0.0000	5.3824	132.0274	22.420
0.86500	425.88714	0.9855	0.0000	5.3619	134.5584	22.858
0.87000	424.57284	0.9817	0.0000	5.3419	137.1194	23.301
0.87500	423.26154	0.9775	0.0000	5.3224	139.7104	23.749
0.88000	421.95324	0.9729	0.0000	5.3034	142.3314	24.202
0.88500	420.64894	0.9679	0.0000	5.2849	144.9824	24.660
0.89000	419.34864	0.9625	0.0000	5.2669	147.6634	25.123
0.89500	418.05234	0.9567	0.0000	5.2494	150.3744	25.591
0.90000	416.76004	0.9505	0.0000	5.2324	153.1154	26.064
0.90500	415.47174	0.9439	0.0000	5.2159	155.8864	26.542
0.91000	414.18744	0.9369	0.0000	5.1999	158.6874	27.025
0.91500	412.90714	0.9295	0.0000	5.1844	161.5184	27.513
0.92000	411.63084	0.9217	0.0000	5.1694	164.3794	28.006
0.92500	410.35854	0.9135	0.0000	5.1549	167.2704	28.504
0.93000	409.09024	0.9049	0.0000	5.1409	170.1914	29.007
0.93500	407.82594	0.8959	0.0000	5.1274	173.1424	29.515
0.94000	406.56564	0.8865	0.0000	5.1144	176.1234	30.028
0.94500	405.30934	0.8767	0.0000	5.1019	179.1344	30.546
0.95000	404.05704	0.8665	0.0000	5.0899	182.1754	31.069
0.95500	402.80874	0.8559	0.0000	5.0784	185.2464	31.597
0.96000	401.56444	0.8449	0.0000	5.0674	188.3474	32.130
0.96500	400.32414	0.8335	0.0000	5.0569	191.4784	32.668
0.97000	399.08784	0.8217	0.0000	5.0469	194.6394	33.211
0.97500	397.85554	0.8095	0.0000	5.0374	197.8304	33.759
0.98000	396.62724	0.7969	0.0000	5.0284	201.0514	34.312
0.98500	395.40294	0.7839	0.0000	5.0199	204.3024	34.870
0.99000	394.18264	0.7705	0.0000	5.0119	207.5834	35.433
0.99500	392.96634	0.7567	0.0000	5.0044	210.8944	36.001
1.00000	391.75404	0.7425	0.0000	5.0000	214.2354	36.574

0.95000	429.44824	0.9945	0.0000	4.7740	147.9825	28.256
0.96000	428.52452	0.9919	0.0000	4.7564	172.2735	28.977
0.97000	427.20444	0.9889	0.0000	4.7398	176.5524	29.697
0.98000	425.88714	0.9855	0.0000	4.7242	180.8171	30.414
0.99000	424.57284	0.9817	0.0000	4.7097	185.0640	31.129
1.00000	423.26154	0.9775	0.0000	4.6961	189.2972	31.841
1.01000	421.95324	0.9729	0.0000	4.6834	193.5094	32.549
1.02000	420.64894	0.9679	0.0000	4.6714	197.7004	33.254
1.03000	419.34864	0.9625	0.0000	4.6604	201.8704	33.954
1.04000	418.05234	0.9567	0.0000	4.6504	206.0144	34.653
1.05000	416.76004	0.9505	0.0000	4.6414	210.1377	35.346
1.06000	415.47174	0.9439	0.0000	4.6324	214.2433	36.035
1.07000	414.18744	0.9369	0.0000	4.6244	218.3314	36.720
1.08000	412.90714	0.9295	0.0000	4.6169	222.4034	37.401
1.09000	411.63084	0.9217	0.0000	4.6104	226.4594	38.074
1.10000	410.35854	0.9135	0.0000	4.6039	230.5004	38.744
1.11000	409.09024	0.9049	0.0000	4.5974	234.5264	39.409
1.12000	407.82594	0.8959	0.0000	4.5914	238.5374	40.068
1.13000	406.56564	0.8865	0.0000	4.5859	242.5334	40.723
1.14000	405.30934	0.8767	0.0000	4.5804	246.5144	41.371
1.15000	404.05704	0.8665	0.0000	4.5749	250.4804	42.014
1.16000	402.80874	0.8559	0.0000	4.5694	254.4314	42.652
1.17000	401.56444	0.8449	0.0000	4.5639	258.3674	43.284
1.18000	400.32414	0.8335	0.0000	4.5584	262.2884	43.911
1.19000	399.08784	0.8217	0.0000	4.5529	266.1944	44.533
1.20000	397.85554	0.8095	0.0000	4.5474	270.0854	45.149
1.21000	396.62724	0.7969	0.0000	4.5419	273.9614	45.753
1.22000	395.40294	0.7839	0.0000	4.5364	277.8224	46.355
1.23000	394.18264	0.7705	0.0000	4.5309	281.6684	46.952
1.24000	392.96634	0.7567	0.0000	4.5254	285.4994	47.542
1.25000	391.75404	0.7425	0.0000	4.5199	289.3154	48.127
1.26000	390.54574	0.7281	0.0000	4.5144	293.1164	48.705
1.27000	389.34144	0.7135	0.0000	4.5089	296.9024	49.277
1.28000	388.14214	0.6989	0.0000	4.5034	300.6734	49.844
1.29000	386.94784	0.6835	0.0000	4.4979	304.4294	50.404
1.30000	385.75854	0.6679	0.0000	4.4924	308.1704	50.958
1.31000	384.57424	0.6519	0.0000	4.4869	311.8964	51.506
1.32000	383.39494	0.6355	0.0000	4.4814	315.6074	52.048
1.33000	382.22064	0.6189	0.0000	4.4759	319.3034	52.584
1.34000	381.05134	0.6025	0.0000	4.4704	322.9844	53.114
1.35000	379.88704	0.5859	0.0000	4.4649	326.6504	53.638
1.36000	378.72774	0.5695	0.0000	4.4594	330.3014	54.156
1.37000	377.57344	0.5529	0.0000	4.4539	333.9374	54.666
1.38000	376.42414	0.5365	0.0000	4.4484	337.5584	55.169
1.39000	375.27984	0.5199	0.0000	4.4429	341.1644	55.666
1.40000	374.14054	0.5035	0.0000	4.4374	344.7554	56.158
1.41000	373.00624	0.4869	0.0000	4.4319	348.3314	56.645
1.42000	371.87694	0.4705	0.0000	4.4264	351.8924	57.127
1.43000	370.75264	0.4539	0.0000	4.4209	355.4384	57.604
1.44000	369.63334	0.4375	0.0000	4.4154	358.9694	58.076
1.45000	368.51904	0.4209	0.0000	4.4099	362.4854	58.543
1.46000	367.40974	0.4045	0.0000	4.4044	365.9864	59.005
1.47000	366.30544	0.3879	0.0000	4.3989	369.4724	59.462
1.48000	365.20614	0.3715	0.0000	4.3934	372.9434	59.910
1.49000	364.11184	0.3549	0.0000	4.3879	376.3994	60.352

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1.50000	254.91495	0.59993	0.00003	1.17443	141.4420	40.800
1.60000	224.62709	0.59992	0.00000	2.07444	145.8141	40.800
1.70000	271.50540	0.59994	0.00000	1.44444	407.2041	40.500
1.80000	177.50540	0.60000	0.00000	2.22110	402.2203	71.600
1.90000	154.47510	0.60000	0.00000	2.51110	442.8970	74.400
2.00000	134.07841	0.60000	0.00000	2.81132	447.4014	74.971
2.10000	122.01843	0.60000	0.00000	2.62509	475.5910	79.154
2.20000	104.40540	0.60000	0.00000	2.34744	442.0004	81.000
2.30000	84.40540	0.60000	0.00000	2.22700	432.2444	87.000
2.40000	64.40540	0.60000	0.00000	2.21110	501.3115	88.321
2.50000	44.40540	0.60000	0.00000	2.15500	500.3445	85.674
2.60000	24.40540	0.60000	0.00000	2.10000	510.5440	84.867
2.70000	4.40540	0.60000	0.00000	2.05335	522.9849	87.960
2.80000	0.40540	0.60000	0.00000	2.00000	524.7501	84.010
2.90000	0.40540	0.60000	0.00000	1.94777	513.9310	80.810
3.00000	0.40540	0.60000	0.00000	1.89444	510.5074	90.504
3.10000	0.40540	0.60000	0.00000	1.84111	542.4034	91.304
3.20000	0.40540	0.60000	0.00000	1.78778	546.4205	91.945
3.30000	0.40540	0.60000	0.00000	1.73445	550.0752	97.524
3.40000	0.40540	0.60000	0.00000	1.68112	553.2115	93.054
3.50000	0.40540	0.60000	0.00000	1.62779	554.0701	91.514
3.60000	0.40540	0.60000	0.00000	1.57446	554.6752	91.072
3.70000	0.40540	0.60000	0.00000	1.52113	561.0555	94.373
3.80000	0.40540	0.60000	0.00000	1.46780	561.2341	94.730
3.90000	0.40540	0.60000	0.00000	1.41447	567.2111	95.075
4.00000	0.40540	0.60000	0.00000	1.36114	567.0470	95.344
4.10000	0.40540	0.60000	0.00000	1.30781	564.7541	95.644
4.20000	0.40540	0.60000	0.00000	1.25448	572.1107	95.920
4.30000	0.40540	0.60000	0.00000	1.20115	571.1442	94.171
4.40000	0.40540	0.60000	0.00000	1.14782	571.0710	94.394
4.50000	0.40540	0.60000	0.00000	1.09449	574.1010	94.601
4.60000	0.40540	0.60000	0.00000	1.04116	575.4101	94.709
4.70000	0.40540	0.60000	0.00000	0.98783	575.4054	94.070
4.80000	0.40540	0.60000	0.00000	0.93450	577.4749	97.134
4.90000	0.40540	0.60000	0.00000	0.88117	578.1902	97.284
5.00000	0.40540	0.60000	0.00000	0.82784	578.2411	97.431
5.10000	0.40540	0.60000	0.00000	0.77451	580.0344	97.545
5.20000	0.40540	0.60000	0.00000	0.72118	580.7754	97.600
5.30000	0.40540	0.60000	0.00000	0.66785	581.4442	97.806
5.40000	0.40540	0.60000	0.00000	0.61452	582.1144	97.915
5.50000	0.40540	0.60000	0.00000	0.56119	582.7214	98.017
5.60000	0.40540	0.60000	0.00000	0.50786	581.2610	98.113
5.70000	0.40540	0.60000	0.00000	0.45453	581.8274	98.203
5.80000	0.40540	0.60000	0.00000	0.40120	584.1255	98.287
5.90000	0.40540	0.60000	0.00000	0.34787	584.4017	98.367
6.00000	0.40540	0.60000	0.00000	0.29454	585.2442	98.447
6.10000	0.40540	0.60000	0.00000	0.24121	585.5848	98.512
6.20000	0.40540	0.60000	0.00000	0.18788	585.0594	98.574
6.30000	0.40540	0.60000	0.00000	0.13455	584.4123	98.641
6.40000	0.40540	0.60000	0.00000	0.08122	584.7442	98.700
6.50000	0.40540	0.60000	0.00000	0.02789	587.1148	98.750
6.60000	0.40540	0.60000	0.00000	0.00000	587.1148	98.800
6.70000	0.40540	0.60000	0.00000	0.00000	587.7322	98.850
6.80000	0.40540	0.60000	0.00000	0.00000	587.0111	98.907
6.90000	0.40540	0.60000	0.00000	0.00000	584.2747	98.959

7.00000	2.47110	0.60000	0.00000	1.1552	584.5124	98.994
7.10000	2.44444	0.60000	0.00000	1.1444	584.7712	99.035
7.20000	2.22043	0.60000	0.00000	1.1344	584.0020	99.074
7.30000	2.11007	0.60000	0.00000	1.1244	584.2124	99.114
7.40000	2.01444	0.60000	0.00000	1.1144	584.4242	99.149
7.50000	1.91905	0.60000	0.00000	1.1044	584.6210	99.174
7.60000	1.82367	0.60000	0.00000	1.0944	584.8104	99.200
7.70000	1.72829	0.60000	0.00000	1.0844	584.9849	99.230
7.80000	1.63291	0.60000	0.00000	1.0744	584.1501	99.264
7.90000	1.53753	0.60000	0.00000	1.0644	584.3215	99.295
8.00000	1.44215	0.60000	0.00000	1.0544	580.4744	99.321
8.10000	1.34677	0.60000	0.00000	1.0444	580.6244	99.346
8.20000	1.25139	0.60000	0.00000	1.0344	580.7458	99.370
8.30000	1.15601	0.60000	0.00000	1.0244	580.9009	99.393
8.40000	1.06063	0.60000	0.00000	1.0144	581.0301	99.414
8.50000	0.96525	0.60000	0.00000	1.0044	581.1517	99.435
8.60000	0.86987	0.60000	0.00000	0.9944	581.2721	99.455
8.70000	0.77449	0.60000	0.00000	0.9844	581.3854	99.474
8.80000	0.67911	0.60000	0.00000	0.9744	581.4940	99.491
8.90000	0.58373	0.60000	0.00000	0.9644	581.5982	99.510
9.00000	0.48835	0.60000	0.00000	0.9544	581.6984	99.527
9.10000	0.39297	0.60000	0.00000	0.9444	581.7938	99.545
9.20000	0.29759	0.60000	0.00000	0.9344	581.8857	99.554
9.30000	0.20221	0.60000	0.00000	0.9244	581.9740	99.571
9.40000	0.10683	0.60000	0.00000	0.9144	582.0544	99.584
9.50000	0.01145	0.60000	0.00000	0.9044	582.1403	99.601
9.60000	0.00000	0.60000	0.00000	0.8944	582.2144	99.614
9.70000	0.00000	0.60000	0.00000	0.8844	582.2810	99.627
9.80000	0.00000	0.60000	0.00000	0.8744	582.3444	99.639
9.90000	0.00000	0.60000	0.00000	0.8644	582.4162	99.651
10.00000	0.00000	0.60000	0.00000	0.8544	582.5013	99.669
10.10000	0.00000	0.60000	0.00000	0.8444	582.5640	99.673
10.20000	0.00000	0.60000	0.00000	0.8344	582.6104	99.684
10.30000	0.00000	0.60000	0.00000	0.8244	582.6504	99.694
10.40000	0.00000	0.60000	0.00000	0.8144	582.7443	99.703
10.50000	0.00000	0.60000	0.00000	0.8044	582.8042	99.713
10.60000	0.00000	0.60000	0.00000	0.7944	582.8540	99.722
10.70000	0.00000	0.60000	0.00000	0.7844	582.9100	99.731
10.80000	0.00000	0.60000	0.00000	0.7744	582.9607	99.739
10.90000	0.00000	0.60000	0.00000	0.7644	583.0047	99.747
11.00000	0.00000	0.60000	0.00000	0.7544	583.0545	99.755
11.10000	0.00000	0.60000	0.00000	0.7444	583.1007	99.763
11.20000	0.00000	0.60000	0.00000	0.7344	583.1444	99.770
11.30000	0.00000	0.60000	0.00000	0.7244	583.1867	99.777
11.40000	0.00000	0.60000	0.00000	0.7144	583.2274	99.784
11.50000	0.00000	0.60000	0.00000	0.7044	583.2671	99.791
11.60000	0.00000	0.60000	0.00000	0.6944	583.3053	99.797
11.70000	0.00000	0.60000	0.00000	0.6844	583.3424	99.803
11.80000	0.00000	0.60000	0.00000	0.6744	583.3742	99.809
11.90000	0.00000	0.60000	0.00000	0.6644	583.4129	99.815
12.00000	0.00000	0.60000	0.00000	0.6544	583.4445	99.821

VISIBILITY AND OTHER DATA FOR PLASMA RADIATOR, MECHANICS DIVISION, D.R.L., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2076.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3250.8  
DEGREES FAHRENHEIT = 5390.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 91.04 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 18118.04 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 5773.52 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.100 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 194.228 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 28.675 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.4917 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.1217 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 612.55 WATT/CM<sup>2</sup> = 6.125500E+09 J/SEC/CM<sup>2</sup> OR 1.51313E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 484.93 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT OF LUMENS PER WATT X RADIANT EMITTANCE X VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: W = B \* W0

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2076.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3250.8  
DEGREES FAHRENHEIT = 5390.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	PERCENT OF TOTAL POWER FOR WAVELENGTH	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	22.93149	0.04601	0.00000	3.64472	0.4108	0.128
0.35500	24.52617	0.05087	0.00000	3.93000	0.9319	0.167
0.36000	26.10724	0.05606	0.00000	4.2460	1.0644	0.169
0.36500	27.67208	0.06160	0.00000	4.59245	1.2152	0.195
0.37000	29.22444	0.06737	0.00000	4.96977	1.3793	0.224
0.37500	30.76843	0.07348	0.00000	5.37812	1.5596	0.267
0.38000	32.30825	0.07994	0.00000	5.81879	1.7470	0.270
0.38500	33.84814	0.08673	0.00000	6.29244	1.9424	0.312
0.39000	35.38374	0.09386	0.00000	6.79977	2.1464	0.349
0.39500	36.91842	0.10133	0.00000	7.34054	2.3611	0.389
0.40000	38.44810	0.10914	0.00000	7.91544	2.5872	0.433
0.40500	40.00000	0.11729	0.00000	8.52497	2.8349	0.479
0.41000	41.56810	0.12579	0.00000	9.16977	3.1047	0.527
0.41500	43.15810	0.13464	0.00000	9.85044	3.3972	0.576
0.42000	44.77208	0.14386	0.00000	10.56777	3.7124	0.627
0.42500	46.41444	0.15348	0.00000	11.32245	4.0504	0.679
0.43000	48.08810	0.16353	0.00000	12.11544	4.4119	0.733
0.43500	49.79810	0.17401	0.00000	12.94777	4.7972	0.788
0.44000	51.53810	0.18494	0.00000	13.82044	5.2064	0.844
0.44500	53.31208	0.19633	0.00000	14.73497	5.6404	0.901
0.45000	55.12444	0.20817	0.00000	15.69245	6.0997	0.960
0.45500	56.97810	0.22047	0.00000	16.69497	6.5849	1.020
0.46000	58.86810	0.23324	0.00000	17.74245	7.0972	1.081
0.46500	60.79810	0.24648	0.00000	18.83497	7.6372	1.144
0.47000	62.76810	0.26019	0.00000	19.97245	8.2049	1.209
0.47500	64.78208	0.27437	0.00000	21.15497	8.7997	1.276
0.48000	66.84444	0.28901	0.00000	22.38245	9.4219	1.345
0.48500	68.95810	0.30411	0.00000	23.65497	10.0724	1.415
0.49000	71.12810	0.31967	0.00000	24.97245	10.7519	1.487
0.49500	73.35810	0.33569	0.00000	26.33497	11.4604	1.561
0.50000	75.64810	0.35217	0.00000	27.74245	12.1997	1.637
0.50500	77.99810	0.36911	0.00000	29.19497	12.9704	1.715
0.51000	80.41208	0.38651	0.00000	30.69245	13.7724	1.795
0.51500	82.88810	0.40437	0.00000	32.23497	14.6049	1.877
0.52000	85.42810	0.42269	0.00000	33.82245	15.4697	1.961
0.52500	88.03810	0.44147	0.00000	35.45497	16.3672	2.047
0.53000	90.71810	0.46071	0.00000	37.13245	17.2972	2.135
0.53500	93.46810	0.48041	0.00000	38.85497	18.2597	2.225
0.54000	96.28810	0.50057	0.00000	40.62245	19.2549	2.317
0.54500	99.17810	0.52119	0.00000	42.43497	20.2824	2.411
0.55000	102.14810	0.54227	0.00000	44.29245	21.3424	2.507
0.55500	105.18810	0.56381	0.00000	46.19497	22.4349	2.605
0.56000	108.29810	0.58581	0.00000	48.14245	23.5697	2.705
0.56500	111.47810	0.60827	0.00000	50.13497	24.7472	2.807
0.57000	114.72810	0.63119	0.00000	52.17245	25.9672	2.911
0.57500	118.04810	0.65457	0.00000	54.25497	27.2297	3.017
0.58000	121.43810	0.67841	0.00000	56.38245	28.5349	3.125
0.58500	124.89810	0.70271	0.00000	58.55497	29.8824	3.235
0.59000	128.42810	0.72747	0.00000	60.77245	31.2724	3.347
0.59500	132.02810	0.75269	0.00000	63.03497	32.7049	3.461
0.60000	135.69810	0.77837	0.00000	65.34245	34.1797	3.577
0.60500	139.43810	0.80451	0.00000	67.69497	35.6972	3.695
0.61000	143.24810	0.83111	0.00000	70.09245	37.2572	3.815
0.61500	147.12810	0.85817	0.00000	72.53497	38.8597	3.937
0.62000	151.07810	0.88569	0.00000	75.01245	40.5049	4.061
0.62500	155.09810	0.91367	0.00000	77.53497	42.1924	4.187
0.63000	159.18810	0.94211	0.00000	80.09245	43.9224	4.315
0.63500	163.34810	0.97101	0.00000	82.68497	45.6949	4.445
0.64000	167.57810	1.00037	0.00000	85.31245	47.5097	4.577
0.64500	171.87810	1.03019	0.00000	87.97497	49.3672	4.711
0.65000	176.24810	1.06047	0.00000	90.67245	51.2672	4.847
0.65500	180.68810	1.09119	0.00000	93.40497	53.2097	4.985
0.66000	185.19810	1.12237	0.00000	96.17245	55.1949	5.125
0.66500	189.77810	1.15397	0.00000	98.97497	57.2224	5.267
0.67000	194.42810	1.18597	0.00000	101.81245	59.2924	5.411
0.67500	199.14810	1.21837	0.00000	104.68497	61.4049	5.557
0.68000	203.93810	1.25119	0.00000	107.59245	63.5597	5.705
0.68500	208.79810	1.28447	0.00000	110.53497	65.7572	5.855
0.69000	213.72810	1.31819	0.00000	113.51245	67.9972	6.007
0.69500	218.72810	1.35237	0.00000	116.52497	70.2797	6.161
0.70000	223.79810	1.38697	0.00000	119.57245	72.6049	6.317
0.70500	228.93810	1.42197	0.00000	122.65497	74.9724	6.475
0.71000	234.14810	1.45737	0.00000	125.77245	77.3824	6.635
0.71500	239.42810	1.49319	0.00000	128.92497	79.8349	6.797
0.72000	244.77810	1.52947	0.00000	132.11245	82.3297	6.961
0.72500	250.19810	1.56619	0.00000	135.33497	84.8672	7.127
0.73000	255.68810	1.60337	0.00000	138.58245	87.4472	7.295
0.73500	261.24810	1.64097	0.00000	141.85497	90.0697	7.465
0.74000	266.87810	1.67897	0.00000	145.15245	92.7349	7.637
0.74500	272.57810	1.71737	0.00000	148.48497	95.4424	7.811
0.75000	278.34810	1.75619	0.00000	151.84245	98.1924	7.987
0.75500	284.18810	1.79547	0.00000	155.22497	100.9849	8.165
0.76000	290.09810	1.83519	0.00000	158.63497	103.8197	8.345
0.76500	296.07810	1.87537	0.00000	162.06497	106.6972	8.527
0.77000	302.12810	1.91597	0.00000	165.51245	109.6172	8.711
0.77500	308.24810	1.95697	0.00000	168.98497	112.5797	8.897
0.78000	314.43810	1.99837	0.00000	172.48245	115.5849	9.085
0.78500	320.69810	2.04019	0.00000	176.00497	118.6324	9.275
0.79000	327.02810	2.08237	0.00000	179.55245	121.7224	9.467
0.79500	333.42810	2.12497	0.00000	183.12497	124.8549	9.661
0.80000	340.89810	2.16797	0.00000	186.72497	128.0297	9.857
0.80500	348.43810	2.21137	0.00000	190.34245	131.2472	10.055
0.81000	356.04810	2.25519	0.00000	193.97497	134.5072	10.255
0.81500	363.72810	2.29947	0.00000	197.63245	137.8097	10.457
0.82000	371.47810	2.34419	0.00000	201.31497	141.1549	10.661
0.82500	379.29810	2.38937	0.00000	205.02245	144.5424	10.867
0.83000	387.18810	2.43497	0.00000	208.75497	147.9724	11.075
0.83500	395.14810	2.48097	0.00000	212.51245	151.4449	11.285
0.84000	403.17810	2.52737	0.00000	216.29497	154.9597	11.497
0.84500	411.27810	2.57419	0.00000	220.10245	158.5172	11.711
0.85000	419.44810	2.62137	0.00000	223.93497	162.1172	11.927
0.85500	427.68810	2.66897	0.00000	227.79245	165.7597	12.145
0.86000	436.09810	2.71697	0.00000	231.67497	169.4449	12.365
0.86500	444.57810	2.76537	0.00000	235.58245	173.1724	12.587
0.87000	453.12810	2.81419	0.00000	239.51497	176.9424	12.811
0.87500	461.74810	2.86347	0.00000	243.47245	180.7549	13.037
0.88000	470.43810	2.91319	0.00000	247.45497	184.6097	13.265
0.88500	479.19810	2.96337	0.00000	251.46245	188.5072	13.495
0.89000	488.02810	3.01397	0.00000	255.49497	192.4472	13.727
0.89500	496.92810	3.06497	0.00000	259.54245	196.4297	13.961
0.90000	505.89810	3.11637	0.00000	263.60497	200.4549	14.197
0.90500	514.93810	3.16819	0.00000	267.68245	204.5224	14.435
0.91000	524.04810	3.22037	0.00000	271.78497	208.6324	14.675
0.91500	533.22810	3.27297	0.00000	275.91245	212.7849	14.917
0.92000	542.47810	3.32597	0.00000	280.06497	216.9797	15.161
0.92500	551.79810	3.37937	0.00000	284.23497	221.2172	15.407
0.93000	561.18810	3.43319	0.00000	288.42245	225.4972	15.655
0.93500	570.64810	3.48737	0.00000	292.63497	229.8197	15.905
0.94000	580.17810	3.54197	0.00000	296.86245	234.1849	16.157
0.94500	589.77810	3.59697	0.00000	301.10497	238.5924	16.411
0.95000	599.44810	3.65237	0.00000	305.36245	243.0424	16.667
0.95500	609.18810	3.70819	0.00000	309.63497	247.5349	16.925
0.96000						

0.57500	270.21264	0.57800	148118.1710	7.7012	10.3541	4.700
0.58000	270.54705	0.58200	143075.2177	7.7151	11.7210	5.011
0.58500	270.77022	0.58700	157119.1012	7.7270	11.1104	5.234
0.59000	270.44021	0.59100	148740.7485	7.7301	10.5448	5.462
0.59500	270.06719	0.59600	159448.7550	7.7401	10.0000	5.693
0.60000	101.04434	0.60400	129180.2045	7.7515	17.4924	5.924
0.60500	107.01148	0.60700	114371.1895	7.7608	19.0197	6.149
0.61000	112.84054	0.61200	107010.8204	7.7681	40.5644	6.414
0.61500	114.61242	0.61700	95445.5214	7.7704	42.1441	6.681
0.62000	116.24941	0.62400	84011.7241	7.7844	43.7554	6.917
0.62500	119.42831	0.7000	71990.9221	7.7873	45.3077	7.174
0.63000	115.24441	0.7142	60418.6115	7.7910	47.0535	7.439
0.63500	140.44124	0.7207	50245.0211	7.7960	48.7431	7.704
0.64000	145.44044	0.7800	41140.9477	7.7227	50.4407	7.977
0.64500	151.04214	0.7510	12940.8482	7.7494	52.2021	8.253
0.65000	154.04407	0.7427	25907.2215	7.7177	51.9698	8.519
0.65500	160.44442	0.7311	19843.0440	7.7651	55.7625	8.814
0.66000	165.74242	0.7314	15171.0441	7.7155	57.5795	9.101
0.66500	170.04647	0.7414	11114.8444	7.7444	59.4201	9.394
0.67000	175.04647	0.8114	8181.4247	7.7151	61.2842	9.684
0.67500	179.52807	0.8130	4915.8142	7.7444	63.1707	9.987
0.68000	181.44714	0.8221	4437.5747	7.7114	65.0793	10.284
0.68500	184.10154	0.8311	3140.4177	7.7414	67.0002	10.594
0.69000	182.21147	0.8447	2184.8704	7.7552	68.9401	10.909
0.69500	184.27281	0.8447	1515.4421	7.7755	70.8112	11.214
0.70000	410.07544	0.8577	1115.4107	7.7145	72.9219	11.524
0.70500	413.42244	0.8551	754.1521	7.7401	74.9317	11.846
0.71000	407.44504	0.8724	581.4401	7.7444	76.9600	12.167
0.71500	410.44071	0.8804	410.2017	7.7201	79.0049	12.498
0.72000	414.34044	0.8874	309.9544	7.7404	81.0494	12.816
0.72500	417.44141	0.8907	134.8170	7.7147	83.1094	13.145
0.73000	420.44542	0.9114	141.4407	7.774	85.2440	13.477
0.73500	423.44724	0.9300	115.2434	7.7344	87.3574	13.810
0.74000	426.44041	0.9143	87.0440	7.7444	89.4444	14.147
0.74500	429.44201	0.9203	54.4243	7.7544	91.4257	14.485
0.75000	432.32194	0.9441	20.3479	7.7177	93.7804	14.824
0.75500	437.34671	0.9140	0.0000	7.7412	94.1295	15.113
0.76000	442.04074	0.9444	0.0000	7.7444	102.5248	16.209
0.76500	444.19154	0.9554	0.0000	7.7441	104.9642	16.911
0.77000	449.94139	0.9434	0.0000	7.7235	111.4432	17.619
0.77500	453.27714	0.9710	0.0000	7.7447	115.9658	18.333
0.78000	454.24105	0.9773	0.0000	7.7474	120.5134	19.052
0.78500	454.74449	0.9800	0.0000	7.7274	125.0693	19.775
0.79000	460.97001	0.9874	0.0000	7.7444	129.4444	20.503
0.79500	462.74227	0.9913	0.0000	7.7445	134.3074	21.233
0.80000	464.24214	0.9444	0.0000	7.7440	134.9479	21.964
0.80500	464.14344	0.9449	0.0000	7.7444	143.5012	22.700
0.81000	464.14011	0.9444	0.0000	7.7101	144.2401	23.437
0.81500	464.44444	0.9449	0.0000	7.7424	152.0114	24.174
0.82000	464.44091	1.0000	0.0000	7.7070	157.5401	24.919
0.82500	464.73144	0.9444	0.0000	7.7442	162.2400	25.659
0.83000	464.34007	0.9400	0.0000	7.7017	166.9147	26.384
0.83500	465.74447	0.9444	0.0000	7.7445	171.5754	27.124
0.84000	464.44077	0.9444	0.0000	7.7405	176.2245	27.860
0.84500	464.73412	0.9444	0.0000	7.7515	180.8716	28.594

0.94000	462.40304	0.9404	0.0000	7.7037	185.5025	29.326
0.94500	462.445714	0.9472	0.0000	7.7444	190.1197	30.054
0.95000	462.11247	0.9435	0.0000	7.7111	194.7100	30.783
0.95500	462.14001	0.9401	0.0000	7.7444	199.3004	31.504
0.96000	455.07044	0.9444	0.0000	7.7274	203.8620	32.229
0.96500	452.74447	0.9400	0.0000	7.7407	208.4014	32.946
0.97000	450.14212	0.9447	0.0000	7.7374	212.9173	33.660
0.97500	447.74345	0.9502	0.0000	7.7447	217.4042	34.370
0.98000	445.04444	0.9514	0.0000	7.7445	221.8726	35.076
0.98500	442.22574	0.9471	0.0000	7.7171	226.3001	35.777
0.99000	430.24417	0.9400	0.0000	7.7244	230.7147	36.474
0.99500	430.10211	0.9344	0.0000	7.7404	235.0940	37.166
1.00000	433.01442	0.9274	0.0000	7.7304	239.4447	37.853
1.00500	420.74025	0.9204	0.0000	7.7107	243.7541	38.535
1.01000	424.10515	0.9114	0.0000	7.7110	248.0140	39.212
1.01500	422.94044	0.9040	0.0000	7.7071	252.2417	39.893
1.02000	410.44375	0.8944	0.0000	7.7429	256.4919	40.568
1.02500	415.44049	0.8909	0.0000	7.7044	260.6746	41.210
1.03000	412.24734	0.8811	0.0000	7.7044	264.8113	41.864
1.03500	404.54039	0.8752	0.0000	7.6642	269.0154	42.513
1.04000	404.42521	0.8672	0.0000	7.6174	272.9423	43.156
1.04500	401.04727	0.8541	0.0000	7.6114	277.0117	43.793
1.05000	397.23171	0.8400	0.0000	7.6711	281.0031	44.424
1.05500	391.14345	0.8427	0.0000	7.6412	284.9542	45.049
1.06000	380.54704	0.8344	0.0000	7.6110	288.8707	45.668
1.06500	384.44704	0.8260	0.0000	7.7431	292.7443	46.280
1.07000	381.44744	0.8174	0.0000	7.7344	296.5828	46.887
1.07500	377.74244	0.8002	0.0000	7.7270	300.3800	47.487
1.08000	371.44541	0.8007	0.0000	7.6497	304.1370	48.081
1.08500	360.44047	0.7921	0.0000	7.6729	307.8541	48.669
1.09000	365.44039	0.7834	0.0000	7.6404	311.5348	49.251
1.09500	361.22850	0.7751	0.0000	7.6204	315.1719	49.826
1.10000	357.94774	0.7644	0.0000	7.5954	318.7734	50.395
1.10500	354.01101	0.7541	0.0000	7.5704	322.3333	50.958
1.11000	350.04044	0.7449	0.0000	7.5454	325.8436	51.514
1.11500	346.11042	0.7414	0.0000	7.5217	329.3345	52.065
1.12000	342.14077	0.7330	0.0000	7.4944	332.7740	52.609
1.12500	338.27342	0.7244	0.0000	7.4747	336.1744	53.147
1.13000	334.17257	0.7163	0.0000	7.4517	339.5416	53.678
1.13500	330.44412	0.7070	0.0000	7.4202	342.8459	54.204
1.14000	326.02441	0.6997	0.0000	7.4070	346.1574	54.723
1.14500	322.74134	0.6914	0.0000	7.3852	349.3984	55.237
1.15000	318.94017	0.6832	0.0000	7.3637	352.6071	55.744
1.15500	315.14273	0.6751	0.0000	7.3424	355.7777	56.245
1.16000	311.34034	0.6670	0.0000	7.3214	358.9105	56.740
1.16500	307.44420	0.6590	0.0000	7.3014	362.0054	57.230
1.17000	303.92541	0.6510	0.0000	7.2813	365.0634	57.713
1.17500	300.23504	0.6431	0.0000	7.2615	368.0842	58.191
1.18000	296.57402	0.6353	0.0000	7.2420	371.0442	58.669
1.18500	292.94114	0.6275	0.0000	7.2224	374.0154	59.140
1.19000	289.14332	0.6194	0.0000	7.2039	376.9272	59.589
1.19500	285.77514	0.6122	0.0000	7.1851	379.8024	60.043
1.20000	282.23912	0.6044	0.0000	7.1669	382.6428	60.492
1.20500	278.73440	0.5971	0.0000	7.1489	385.4407	60.934
1.21000	275.24440	0.5896	0.0000	7.1311	388.2176	61.374

1.50000	271.83129	0.5821	0.0000	1.1136	390.9511	61.806
1.60000	239.40175	0.4128	0.0000	2.0520	418.4853	65.847
1.70000	210.54200	0.4510	0.0000	2.4117	438.9530	69.394
1.80000	185.12931	0.3468	0.0000	2.6849	458.7088	72.514
1.90000	162.90120	0.1889	0.0000	2.8808	478.0891	75.265
2.00000	141.53131	0.1075	0.0000	2.9844	491.3844	77.683
2.10000	126.44667	0.2718	0.0000	2.9992	504.8759	79.814
2.20000	112.05054	0.2400	0.0000	2.9325	518.7658	81.701
2.30000	99.12104	0.2128	0.0000	2.7531	527.3497	83.369
2.40000	88.24454	0.1890	0.0000	2.5907	538.7154	84.859
2.50000	78.59284	0.1684	0.0000	2.4337	545.0444	86.167
2.60000	70.11464	0.1503	0.0000	2.2814	552.4748	87.341
2.70000	62.79901	0.1345	0.0000	2.1343	559.1143	88.391
2.80000	56.32477	0.1207	0.0000	1.9903	565.0611	89.331
2.90000	50.64455	0.1084	0.0000	1.8501	570.4054	90.174
3.00000	45.61977	0.0974	0.0000	1.7128	575.2143	90.936
3.10000	41.22214	0.0883	0.0000	1.5781	579.5529	91.622
3.20000	37.41154	0.0799	0.0000	1.4462	583.4759	92.247
3.30000	33.84481	0.0725	0.0000	1.3162	587.0103	92.804
3.40000	30.76504	0.0659	0.0000	1.1881	590.2579	93.314
3.50000	28.01947	0.0600	0.0000	1.0622	593.1944	93.779
3.60000	25.56795	0.0548	0.0000	0.9384	595.8714	94.202
3.70000	23.37431	0.0501	0.0000	0.8164	598.3147	94.584
3.80000	21.40730	0.0459	0.0000	0.6970	600.5580	94.942
3.90000	19.63991	0.0421	0.0000	0.5804	602.6048	95.264
4.00000	18.04872	0.0387	0.0000	0.4673	604.4879	95.564
4.10000	16.61134	0.0356	0.0000	0.3581	606.2198	95.834
4.20000	15.31424	0.0328	0.0000	0.2528	607.8152	96.080
4.30000	14.14181	0.0301	0.0000	0.1514	609.2871	96.323
4.40000	13.07641	0.0276	0.0000	0.0540	610.6472	96.538
4.50000	12.10842	0.0253	0.0000	0.5711	611.9047	96.737
4.60000	11.22404	0.0231	0.0000	0.5571	613.0718	96.921
4.70000	10.42522	0.0213	0.0000	0.5437	614.1519	97.092
4.80000	9.70224	0.0198	0.0000	0.5306	615.1502	97.251
4.90000	9.05204	0.0183	0.0000	0.5187	616.0944	97.399
5.00000	8.46831	0.0169	0.0000	0.5071	616.9855	97.537
5.10000	7.94551	0.0158	0.0000	0.4959	617.7778	97.665
5.20000	7.47867	0.0147	0.0000	0.4851	618.5341	97.785
5.30000	7.05362	0.0137	0.0000	0.4740	619.2649	97.897
5.40000	6.66581	0.0127	0.0000	0.4632	619.9691	98.002
5.50000	6.31237	0.0119	0.0000	0.4528	620.6522	98.100
5.60000	5.98995	0.0111	0.0000	0.4427	621.3116	98.192
5.70000	5.69574	0.0103	0.0000	0.4329	621.9541	98.274
5.80000	5.42724	0.0097	0.0000	0.4234	622.5716	98.340
5.90000	5.18224	0.0090	0.0000	0.4141	623.1644	98.436
6.00000	4.95847	0.0084	0.0000	0.4051	623.7344	98.508
6.10000	4.75467	0.0078	0.0000	0.3963	624.2810	98.575
6.20000	4.56861	0.0073	0.0000	0.3878	624.8044	98.639
6.30000	4.39801	0.0067	0.0000	0.3795	625.3044	98.699
6.40000	4.24151	0.0062	0.0000	0.3714	625.7810	98.754
6.50000	4.09649	0.0057	0.0000	0.3634	626.2344	98.810
6.60000	3.96104	0.0052	0.0000	0.3556	626.6644	98.861
6.70000	3.83404	0.0047	0.0000	0.3480	627.0710	98.909
6.80000	3.71404	0.0042	0.0000	0.3405	627.4544	98.954
6.90000	3.60045	0.0037	0.0000	0.3334	627.8144	98.998

7.00000	3.49234	0.0034	0.0000	1.1491	628.1663	99.039
7.10000	3.38607	0.0031	0.0000	1.1439	628.5123	99.077
7.20000	3.28642	0.0028	0.0000	1.1387	628.8444	99.114
7.30000	3.19317	0.0026	0.0000	1.1334	629.1624	99.149
7.40000	3.10592	0.0024	0.0000	1.1282	629.4749	99.183
7.50000	3.02405	0.0022	0.0000	1.1230	629.7808	99.215
7.60000	2.94644	0.0020	0.0000	1.1179	629.7711	99.245
7.70000	2.87302	0.0018	0.0000	1.1128	629.9513	99.274
7.80000	2.80364	0.0016	0.0000	1.1076	630.1270	99.301
7.90000	2.73823	0.0015	0.0000	1.1025	630.2927	99.327
8.00000	2.67682	0.0013	0.0000	1.1070	630.4508	99.352
8.10000	2.61947	0.0012	0.0000	1.1018	630.6014	99.376
8.20000	2.56607	0.0010	0.0000	1.0964	630.7460	99.399
8.30000	2.51679	0.0009	0.0000	1.0902	630.8839	99.421
8.40000	2.47150	0.0007	0.0000	1.0845	630.9157	99.442
8.50000	2.43014	0.0006	0.0000	1.0782	630.9419	99.462
8.60000	2.39272	0.0005	0.0000	1.0719	630.9626	99.481
8.70000	2.35924	0.0004	0.0000	1.0659	630.9782	99.499
8.80000	2.32963	0.0003	0.0000	1.0592	630.9890	99.516
8.90000	2.30394	0.0002	0.0000	1.0527	630.9952	99.533
9.00000	2.28214	0.0001	0.0000	1.0460	630.9970	99.549
9.10000	2.26424	0.0000	0.0000	1.0392	630.9947	99.565
9.20000	2.25024	0.0000	0.0000	1.0324	630.9884	99.580
9.30000	2.23914	0.0000	0.0000	1.0256	630.9785	99.594
9.40000	2.23094	0.0000	0.0000	1.0188	630.9649	99.607
9.50000	2.22455	0.0000	0.0000	1.0120	630.9480	99.621
9.60000	2.21994	0.0000	0.0000	1.0052	630.9279	99.633
9.70000	2.21694	0.0000	0.0000	0.9984	630.9047	99.645
9.80000	2.21544	0.0000	0.0000	0.9916	630.8784	99.657
9.90000	2.21524	0.0000	0.0000	0.9848	630.8497	99.668
10.00000	2.21624	0.0000	0.0000	0.9780	630.8182	99.679
10.10000	2.21824	0.0000	0.0000	0.9712	630.7841	99.690
10.20000	2.22124	0.0000	0.0000	0.9644	630.7476	99.700
10.30000	2.22514	0.0000	0.0000	0.9576	630.7089	99.709
10.40000	2.22984	0.0000	0.0000	0.9508	630.6679	99.719
10.50000	2.23524	0.0000	0.0000	0.9440	630.6244	99.728
10.60000	2.24124	0.0000	0.0000	0.9372	630.5787	99.738
10.70000	2.24784	0.0000	0.0000	0.9304	630.5307	99.745
10.80000	2.25494	0.0000	0.0000	0.9236	630.4808	99.753
10.90000	2.26254	0.0000	0.0000	0.9168	630.4282	99.761
11.00000	2.27064	0.0000	0.0000	0.9100	630.3730	99.768
11.10000	2.27924	0.0000	0.0000	0.9032	630.3154	99.775
11.20000	2.28834	0.0000	0.0000	0.8964	630.2557	99.782
11.30000	2.29794	0.0000	0.0000	0.8896	630.1940	99.789
11.40000	2.30804	0.0000	0.0000	0.8828	630.1304	99.796
11.50000	2.31864	0.0000	0.0000	0.8760	630.0649	99.803
11.60000	2.32974	0.0000	0.0000	0.8692	630.0074	99.808
11.70000	2.34134	0.0000	0.0000	0.8624	630.0487	99.814
11.80000	2.35344	0.0000	0.0000	0.8556	630.0887	99.820
11.90000	2.36604	0.0000	0.0000	0.8488	630.1270	99.826
12.00000	2.37914	0.0000	0.0000	0.8420	630.1634	99.831

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3300.0  
DEGREES FAHRENHEIT = 5480.9

THE POWER RADIATED FROM 0.30 TO 0.75 MICRON IS 103.72 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 26421.07 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 4500.23 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.151 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 200.750 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 30.371 LUMEN/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.4770 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.1047 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 672.38 WATT/CM<sup>2</sup> OR 6.723870000 PHW/SEC/CM<sup>2</sup> OR 1.607010001 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 503.87 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT N IN THE FOLLOWING FORMULA: % = N/TOM.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3300.0  
DEGREES FAHRENHEIT = 5480.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPOINENT N FOR W/TOM	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	27.77479	0.0551	0.0000	12.4344	1.0000	0.149
0.36000	30.43418	0.0612	0.0000	12.2762	1.1878	0.171
0.37000	34.09749	0.0677	0.0000	12.1087	1.3098	0.195
0.38000	37.56756	0.0746	0.0000	11.9424	1.4887	0.221
0.39000	41.24385	0.0819	0.0000	11.7814	1.6887	0.251
0.40000	45.12663	0.0896	0.0000	11.6243	1.9015	0.283
0.41000	49.21500	0.0977	0.0000	11.4714	2.1373	0.318
0.42000	53.50728	0.1062	0.0000	11.3225	2.3960	0.356
0.43000	58.00100	0.1151	0.0000	11.1773	2.6777	0.397
0.44000	62.69302	0.1244	0.0000	11.0359	2.9744	0.442
0.45000	67.57962	0.1341	18.3816	10.8979	3.2860	0.491
0.46000	72.65589	0.1442	19.5244	10.7634	3.6155	0.543
0.47000	77.91702	0.1546	43.5401	10.6322	4.0248	0.599
0.48000	83.35740	0.1654	124.7027	10.5041	4.4290	0.659
0.49000	88.97058	0.1766	242.0000	10.3791	4.8607	0.721
0.50000	94.74091	0.1880	470.3385	10.2570	5.3104	0.781
0.51000	100.64821	0.1998	794.2287	10.1374	5.8085	0.864
0.52000	106.77704	0.2119	1219.8316	10.0213	6.3271	0.941
0.53000	113.11126	0.2243	1747.4861	9.9075	6.8765	1.021
0.54000	119.74985	0.2369	2354.1707	9.7963	7.4574	1.109
0.55000	125.67524	0.2498	3252.6172	9.6875	8.0755	1.200
0.56000	132.00845	0.2629	4324.4359	9.5811	8.7144	1.296
0.57000	138.71164	0.2763	5679.8367	9.4770	9.3956	1.397
0.58000	146.73479	0.2898	7346.4704	9.3752	10.1087	1.503
0.59000	155.04005	0.3034	9464.4871	9.2755	10.8541	1.615
0.60000	159.74531	0.3174	12181.4387	9.1780	11.6333	1.731
0.61000	167.71414	0.3315	15786.1991	9.0825	12.4557	1.852
0.62000	174.14708	0.3454	20012.9824	8.9889	13.3085	1.979
0.63000	181.33427	0.3590	25647.9195	8.8971	14.1972	2.111
0.64000	188.96649	0.3742	33047.1750	8.8076	15.1220	2.249
0.65000	196.93594	0.3889	43013.4092	8.7184	16.0830	2.392
0.66000	203.13262	0.4031	56218.9844	8.6334	17.0804	2.540
0.67000	210.44814	0.4177	71941.6959	8.5489	18.1183	2.694
0.68000	217.77409	0.4322	90016.4213	8.4660	19.1849	2.851
0.69000	225.10200	0.4467	108679.2472	8.3848	20.2921	3.014
0.70000	232.42374	0.4613	125332.1840	8.3051	21.4359	3.184
0.71000	239.73141	0.4758	140520.9654	8.2269	22.6143	3.364
0.72000	247.01727	0.4902	153694.1454	8.1502	23.8331	3.549
0.73000	254.27384	0.5044	164952.5343	8.0749	25.0844	3.731
0.74000	261.49387	0.5190	174259.5812	8.0010	26.3758	3.923
0.75000	268.67064	0.5332	181782.5549	7.9285	27.7013	4.120
0.76000	275.79720	0.5474	187542.0979	7.8573	29.0624	4.322
0.77000	282.86723	0.5614	191387.9455	7.7873	30.4501	4.530
0.78000	289.87450	0.5753	192475.3056	7.7184	31.8910	4.743
0.79000	296.81341	0.5891	192145.1269	7.6512	33.3474	4.961

0.57500	111.47415	0.4577	188948.9318	7.5849	16.8490	5.188
0.58000	111.48135	0.4542	188970.1789	7.5814	16.1988	5.413
0.58500	111.48857	0.4508	189001.8184	7.5780	17.0435	5.648
0.59000	111.49581	0.4476	189033.0586	7.5746	17.5855	5.884
0.59500	111.50304	0.4445	189064.8007	7.5713	18.2011	6.128
0.60000	111.51028	0.4415	189097.0449	7.5680	18.5687	6.374
0.60500	111.51751	0.4386	189129.7911	7.5648	19.2044	6.620
0.61000	111.52475	0.4358	189163.0381	7.5617	19.8484	6.868
0.61500	111.53199	0.4332	189196.7857	7.5587	20.5004	7.118
0.62000	111.53923	0.4307	189231.0337	7.5558	21.1600	7.370
0.62500	111.54647	0.4283	189265.7817	7.5530	21.8270	7.624
0.63000	111.55371	0.4260	189301.0297	7.5503	22.5010	7.880
0.63500	111.56095	0.4238	189336.7777	7.5477	23.1820	8.138
0.64000	111.56819	0.4217	189373.0257	7.5452	23.8700	8.400
0.64500	111.57543	0.4197	189409.7737	7.5428	24.5660	8.664
0.65000	111.58267	0.4178	189447.0217	7.5405	25.2690	8.932
0.65500	111.58991	0.4160	189484.7697	7.5383	25.9790	9.204
0.66000	111.59715	0.4143	189523.0177	7.5362	26.6960	9.480
0.66500	111.60439	0.4127	189561.7657	7.5342	27.4200	9.760
0.67000	111.61163	0.4112	189601.0137	7.5323	28.1510	10.044
0.67500	111.61887	0.4100	189640.7617	7.5305	28.8890	10.332
0.68000	111.62611	0.4088	189681.0097	7.5288	29.6340	10.624
0.68500	111.63335	0.4078	189721.7577	7.5272	30.3860	10.920
0.69000	111.64059	0.4069	189763.0057	7.5257	31.1450	11.220
0.69500	111.64783	0.4061	189804.7537	7.5243	31.9110	11.524
0.70000	111.65507	0.4054	189847.0017	7.5230	32.6840	11.832
0.70500	111.66231	0.4048	189889.7497	7.5218	33.4640	12.144
0.71000	111.66955	0.4043	189933.0000	7.5207	34.2510	12.460
0.71500	111.67679	0.4039	189976.7500	7.5197	35.0450	12.780
0.72000	111.68403	0.4036	190021.0000	7.5188	35.8460	13.104
0.72500	111.69127	0.4034	190065.7500	7.5180	36.6540	13.432
0.73000	111.69851	0.4033	190111.0000	7.5173	37.4690	13.764
0.73500	111.70575	0.4033	190156.7500	7.5167	38.2910	14.100
0.74000	111.71299	0.4034	190203.0000	7.5162	39.1200	14.440
0.74500	111.72023	0.4036	190249.7500	7.5158	39.9560	14.784
0.75000	111.72747	0.4039	190297.0000	7.5155	40.8000	15.132
0.75500	111.73471	0.4043	190344.7500	7.5153	41.6510	15.484
0.76000	111.74195	0.4048	190393.0000	7.5152	42.5090	15.840
0.76500	111.74919	0.4054	190441.7500	7.5152	43.3740	16.200
0.77000	111.75643	0.4061	190491.0000	7.5153	44.2460	16.564
0.77500	111.76367	0.4069	190540.7500	7.5155	45.1260	16.932
0.78000	111.77091	0.4078	190591.0000	7.5158	46.0130	17.304
0.78500	111.77815	0.4088	190641.7500	7.5163	46.9070	17.680
0.79000	111.78539	0.4099	190693.0000	7.5169	47.8080	18.060
0.79500	111.79263	0.4112	190744.7500	7		



1.50000	284.97934	0.5696	0.0000	3.0742	422.1447	62.781
1.60000	280.37071	0.4969	0.0000	2.9157	449.8700	66.760
1.70000	219.77019	0.4361	0.0000	2.7780	472.3511	70.290
1.80000	192.84140	0.3827	0.0000	2.6574	492.0649	73.114
1.90000	169.41001	0.3362	0.0000	2.5515	511.0343	76.000
2.00000	149.05172	0.2958	0.0000	2.4575	529.0314	78.168
2.10000	131.39055	0.2608	0.0000	2.3735	546.0345	80.451
2.20000	116.07367	0.2304	0.0000	2.2993	561.2806	82.288
2.30000	102.78148	0.2040	0.0000	2.2354	574.2147	83.913
2.40000	91.23284	0.1811	0.0000	2.1809	583.0040	85.354
2.50000	81.14253	0.1611	0.0000	2.1332	588.4112	86.634
2.60000	72.41910	0.1437	0.0000	2.0922	590.1833	87.775
2.70000	64.76143	0.1285	0.0000	2.0554	597.0334	88.790
2.80000	58.05479	0.1152	0.0000	1.9727	603.1673	89.704
2.90000	52.14724	0.1035	0.0000	1.9331	608.6721	90.529
3.00000	46.98644	0.0933	0.0000	1.8966	613.4243	91.261
3.10000	42.41653	0.0842	0.0000	1.8627	618.0897	91.925
3.20000	38.37584	0.0762	0.0000	1.8312	622.1252	92.524
3.30000	34.79485	0.0691	0.0000	1.8014	625.7402	93.069
3.40000	31.61324	0.0627	0.0000	1.7744	629.0975	93.563
3.50000	28.78054	0.0571	0.0000	1.7488	632.1145	94.011
3.60000	26.25274	0.0521	0.0000	1.7247	634.8637	94.420
3.70000	23.99129	0.0476	0.0000	1.7021	637.3719	94.753
3.80000	21.96581	0.0436	0.0000	1.6809	639.6770	95.135
3.90000	20.14608	0.0400	0.0000	1.6602	641.7736	95.468
4.00000	18.50849	0.0367	0.0000	1.6419	643.7052	95.755
4.10000	17.03191	0.0338	0.0000	1.6241	645.4830	95.999
4.20000	15.69794	0.0312	0.0000	1.6071	647.1164	96.202
4.30000	14.49049	0.0288	0.0000	1.5911	648.6248	96.467
4.40000	13.39804	0.0266	0.0000	1.5758	650.0183	96.674
4.50000	12.40144	0.0246	0.0000	1.5613	651.3074	96.846
4.60000	11.49734	0.0228	0.0000	1.5474	652.5016	97.001
4.70000	10.67304	0.0212	0.0000	1.5348	653.6195	97.200
4.80000	9.92077	0.0197	0.0000	1.5229	654.6546	97.361
4.90000	9.23395	0.0183	0.0000	1.5102	655.5958	97.504
5.00000	8.60344	0.0171	0.0000	1.4985	656.4427	97.634
5.10000	8.02624	0.0159	0.0000	1.4875	657.1163	97.760
5.20000	7.49629	0.0149	0.0000	1.4770	657.6940	97.875
5.30000	7.00907	0.0139	0.0000	1.4670	658.1149	97.981
5.40000	6.56054	0.0130	0.0000	1.4573	658.4871	98.084
5.50000	6.14713	0.0122	0.0000	1.4481	658.8122	98.178
5.60000	5.76557	0.0114	0.0000	1.4392	659.0724	98.267
5.70000	5.41300	0.0107	0.0000	1.4304	659.2861	98.350
5.80000	5.08683	0.0101	0.0000	1.4224	659.4111	98.428
5.90000	4.78473	0.0095	0.0000	1.4145	659.4565	98.501
6.00000	4.50462	0.0089	0.0000	1.4069	659.4248	98.570
6.10000	4.24441	0.0084	0.0000	1.3994	659.3261	98.635
6.20000	4.00301	0.0079	0.0000	1.3924	659.1613	98.697
6.30000	3.77824	0.0075	0.0000	1.3855	658.9272	98.755
6.40000	3.56901	0.0071	0.0000	1.3789	658.6345	98.809
6.50000	3.37401	0.0067	0.0000	1.3725	658.2715	98.861
6.60000	3.19204	0.0063	0.0000	1.3663	657.8407	98.910
6.70000	3.02220	0.0060	0.0000	1.3603	657.3401	98.956
6.80000	2.86361	0.0057	0.0000	1.3545	656.7845	99.000
6.90000	2.71491	0.0054	0.0000	1.3489	656.1934	99.041

7.00000	2.57587	0.0051	0.0000	1.3435	655.5678	99.080
7.10000	2.44554	0.0049	0.0000	1.3382	654.9048	99.118
7.20000	2.32380	0.0044	0.0000	1.3331	654.1872	99.151
7.30000	2.21073	0.0040	0.0000	1.3281	653.4137	99.187
7.40000	2.10593	0.0037	0.0000	1.3233	652.5922	99.219
7.50000	2.00979	0.0034	0.0000	1.3184	651.7162	99.249
7.60000	1.92184	0.0031	0.0000	1.3140	650.7893	99.278
7.70000	1.84149	0.0028	0.0000	1.3094	649.8153	99.304
7.80000	1.76824	0.0026	0.0000	1.3053	648.8024	99.332
7.90000	1.65084	0.0023	0.0000	1.3011	647.7441	99.357
8.00000	1.57577	0.0021	0.0000	1.2971	646.6458	99.381
8.10000	1.50409	0.0020	0.0000	1.2931	645.5028	99.404
8.20000	1.43474	0.0019	0.0000	1.2892	644.3219	99.424
8.30000	1.37087	0.0017	0.0000	1.2855	643.1085	99.447
8.40000	1.31483	0.0016	0.0000	1.2814	641.8680	99.467
8.50000	1.26420	0.0015	0.0000	1.2772	640.6074	99.484
8.60000	1.21844	0.0014	0.0000	1.2744	639.3207	99.505
8.70000	1.17644	0.0013	0.0000	1.2714	638.0146	99.522
8.80000	1.13742	0.0012	0.0000	1.2680	636.6916	99.539
8.90000	1.10195	0.0011	0.0000	1.2644	635.3488	99.555
9.00000	1.06941	0.0010	0.0000	1.2614	633.9914	99.570
9.10000	1.03945	0.0010	0.0000	1.2584	632.6242	99.585
9.20000	1.01145	0.0009	0.0000	1.2555	631.2544	99.600
9.30000	0.98593	0.0008	0.0000	1.2524	629.8765	99.613
9.40000	0.96245	0.0007	0.0000	1.2497	628.4847	99.624
9.50000	0.94093	0.0006	0.0000	1.2469	627.0814	99.639
9.60000	0.92022	0.0006	0.0000	1.2442	625.6718	99.651
9.70000	0.89974	0.0005	0.0000	1.2415	624.2511	99.663
9.80000	0.87959	0.0005	0.0000	1.2388	622.8244	99.674
9.90000	0.85971	0.0004	0.0000	1.2363	621.3969	99.685
10.00000	0.84011	0.0004	0.0000	1.2337	619.9636	99.695
10.10000	0.82082	0.0003	0.0000	1.2311	618.5288	99.705
10.20000	0.80184	0.0003	0.0000	1.2289	617.0925	99.715
10.30000	0.78317	0.0002	0.0000	1.2265	615.6549	99.724
10.40000	0.76481	0.0002	0.0000	1.2242	614.2151	99.731
10.50000	0.74693	0.0001	0.0000	1.2219	612.7743	99.741
10.60000	0.72944	0.0001	0.0000	1.2197	611.3330	99.750
10.70000	0.71232	0.0001	0.0000	1.2175	609.8910	99.754
10.80000	0.69559	0.0000	0.0000	1.2153	608.4481	99.766
10.90000	0.67924	0.0000	0.0000	1.2131	606.9994	99.773
11.00000	0.66326	0.0000	0.0000	1.2112	605.5448	99.780
11.10000	0.64761	0.0000	0.0000	1.2092	604.0841	99.787
11.20000	0.63229	0.0000	0.0000	1.2072	602.6183	99.794
11.30000	0.61729	0.0000	0.0000	1.2053	601.1482	99.800
11.40000	0.60259	0.0000	0.0000	1.2033	600.6726	99.807
11.50000	0.58819	0.0000	0.0000	1.2011	600.1916	99.811
11.60000	0.57404	0.0000	0.0000	1.1994	600.7033	99.818
11.70000	0.55994	0.0000	0.0000	1.1974	600.2087	99.825
11.80000	0.54607	0.0000	0.0000	1.1961	600.7140	99.830
11.90000	0.53241	0.0000	0.0000	1.1943	600.2144	99.835
12.00000	0.51890	0.0000	0.0000	1.1924	600.7108	99.841

THE TRANSMITTANCE IS 1.0000 AND THE TEMPERATURE IS 3390.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES R = 3350.0  
DEGREES FAHRENHEIT = 5570.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRONS IS 111.32 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 7297.27 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (CDPI) OF TOTAL VISIBLE FLUX IS 7297.27 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.4150.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 272.199 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 12.071 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.4485 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.4901 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EFFICIENCY TO TOTAL RADIANT EFFICIENCY.

THE TOTAL POWER RADIATED IS 264.07 WATT/CM<sup>2</sup> OR 2.640666667E+09 ERG/SEC/CM<sup>2</sup> OR 1.700000001E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 504.21 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 6) IS THE PRODUCT: WATT/CM<sup>2</sup> PER WAVELENGTH \* RADIANT EFFICIENCY \* VISIBILITY FACTOR.  
WHERE RADIANT EFFICIENCY IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EFFICIENCY MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta \epsilon = \epsilon \cdot M \cdot \Delta T / T$

THE TRANSMITTANCE IS 1.0000 AND THE TEMPERATURE IS 3390.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES R = 3350.0  
DEGREES FAHRENHEIT = 5570.0

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER SUM WATTS/CM <sup>2</sup> PER WAVELENGTH	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TRANSMITTANCE END WAVELENGTH	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.34000	11.06444	1.3814	0.7000	12.3847	1.2294	0.172
0.35500	17.01611	0.7082	0.7000	12.1943	1.4045	0.197
0.36000	40.40335	0.7070	0.7000	11.1271	1.5201	0.224
0.36500	44.46723	0.7067	0.7000	11.1763	1.6114	0.254
0.37000	49.12297	0.7064	0.7000	11.2454	2.0444	0.287
0.37500	53.67623	0.7060	0.7000	11.3359	2.3054	0.323
0.38000	58.06471	0.7056	0.7000	11.4372	2.5847	0.362
0.38500	62.16847	0.7051	0.7000	11.5485	2.8000	0.405
0.39000	65.96144	0.7046	0.7000	11.6698	3.2104	0.451
0.39500	70.41144	0.7041	0.7000	10.8717	3.5756	0.501
0.40000	74.48114	0.7036	0.7000	10.7413	3.9502	0.554
0.40500	78.13227	0.7031	0.7000	10.4728	4.3712	0.619
0.41000	81.40647	0.7026	0.7000	10.4735	4.8127	0.674
0.41500	84.35647	0.7021	0.7000	10.3470	5.2817	0.740
0.42000	87.02114	0.7016	0.7000	10.2243	5.7846	0.811
0.42500	89.42044	0.7011	0.7000	10.1067	6.3217	0.884
0.43000	91.59647	0.7006	0.7000	9.9944	6.8926	0.964
0.43500	93.59647	0.7001	0.7000	9.8871	7.4994	1.050
0.44000	95.44647	0.6996	0.7000	9.7847	8.1327	1.139
0.44500	97.17647	0.6991	0.7000	9.6871	8.7958	1.233
0.45000	98.80647	0.6986	0.7000	9.5943	9.4988	1.332
0.45500	100.34647	0.6981	0.7000	9.5067	10.2406	1.437
0.46000	101.80647	0.6976	0.7000	9.4243	11.0216	1.547
0.46500	103.19647	0.6971	0.7000	9.3467	11.8448	1.662
0.47000	104.54647	0.6966	0.7000	9.2743	12.7104	1.782
0.47500	105.86647	0.6961	0.7000	9.2067	13.6211	1.908
0.48000	107.15647	0.6956	0.7000	9.1443	14.5774	2.039
0.48500	108.42647	0.6951	0.7000	9.0867	15.5794	2.175
0.49000	109.67647	0.6946	0.7000	9.0343	16.6264	2.314
0.49500	110.90647	0.6941	0.7000	8.9867	17.7187	2.465
0.50000	112.11647	0.6936	0.7000	8.9443	18.8560	2.619
0.50500	113.30647	0.6931	0.7000	8.9067	19.8351	2.774
0.51000	114.47647	0.6926	0.7000	8.8743	20.8107	2.942
0.51500	115.62647	0.6921	0.7000	8.8467	21.7742	3.113
0.52000	116.75647	0.6916	0.7000	8.8243	22.6814	3.284
0.52500	117.86647	0.6911	0.7000	8.8067	23.5373	3.470
0.53000	118.95647	0.6906	0.7000	8.7943	24.3477	3.657
0.53500	119.99647	0.6901	0.7000	8.7867	25.1127	3.844
0.54000	120.99647	0.6896	0.7000	8.7843	25.8374	4.034
0.54500	121.96647	0.6891	0.7000	8.7867	26.5216	4.221
0.55000	122.90647	0.6886	0.7000	8.7943	27.1648	4.404
0.55500	123.81647	0.6881	0.7000	8.8067	27.7667	4.587
0.56000	124.69647	0.6876	0.7000	8.8243	28.3269	4.769
0.56500	125.54647	0.6871	0.7000	8.8467	28.8454	4.950
0.57000	126.36647	0.6866	0.7000	8.8743	29.3224	5.130

0.57500	340.07981	0.0201	211597.4103	7.4721	19.8844	5.584
0.58000	347.14034	0.0394	205486.5442	7.4047	41.6010	5.824
0.58500	354.48945	0.0526	194945.1587	7.3450	43.3577	6.072
0.59000	361.54894	0.0656	186110.9431	7.2830	45.1478	6.321
0.59500	368.48740	0.0783	178147.1447	7.2222	46.9730	6.570
0.60000	375.30968	0.0909	161037.8422	7.1621	48.8325	6.839
0.60500	382.01149	0.1032	147288.4290	7.1034	50.7259	7.104
0.61000	388.59012	0.1154	137913.3655	7.0456	52.6524	7.374
0.61500	395.04160	0.1272	114465.0762	6.9886	54.6115	7.648
0.62000	401.36315	0.1389	101985.1637	6.9327	56.6026	7.927
0.62500	407.55201	0.1503	88960.4547	6.8774	58.6250	8.210
0.63000	413.61580	0.1614	74531.7454	6.8234	60.6779	8.494
0.63500	419.52227	0.1723	61904.7064	6.7701	62.7608	8.789
0.64000	425.28951	0.1829	50610.6414	6.7174	64.8729	9.085
0.64500	430.93581	0.1933	40439.0145	6.6650	67.0135	9.385
0.65000	436.42972	0.2034	31754.6263	6.6131	69.1820	9.684
0.65500	441.78000	0.2133	24333.2423	6.5615	71.3774	9.984
0.66000	446.99563	0.2229	18540.9641	6.5104	73.5994	10.307
0.66500	452.04587	0.2322	13832.6021	6.4607	75.8472	10.628
0.67000	456.95995	0.2412	9943.4485	6.4124	78.1198	10.940
0.67500	461.72761	0.2500	7221.4194	6.3652	80.4165	11.262
0.68000	466.34854	0.2585	5390.9894	6.3192	82.7344	11.587
0.68500	470.82276	0.2667	3899.4974	6.2746	85.0746	11.915
0.69000	475.15031	0.2747	2649.4341	6.2314	87.4448	12.248
0.69500	479.33144	0.2824	1657.8844	6.1893	89.8310	12.580
0.70000	483.36669	0.2898	1147.4263	6.1477	92.2378	12.917
0.70500	487.25650	0.2970	760.8649	6.1064	94.6645	13.257
0.71000	491.00160	0.3039	701.1503	6.0653	97.1102	13.600
0.71500	494.60282	0.3105	504.4949	6.0243	99.5742	13.945
0.72000	498.06110	0.3169	372.5407	5.9833	102.0559	14.292
0.72500	501.37744	0.3230	214.4557	5.9427	104.5546	14.642
0.73000	504.55314	0.3288	171.5441	5.8947	107.0695	14.994
0.73500	507.58932	0.3344	138.7843	5.8490	109.5999	15.348
0.74000	510.48714	0.3398	104.1394	5.8045	112.1451	15.705
0.74500	513.24675	0.3444	69.8014	5.7619	114.7045	16.064
0.75000	515.87491	0.3487	35.0795	5.7204	117.2774	16.424
0.75500	518.37819	0.3528	0.0000	5.6799	122.4444	17.150
0.76000	520.76041	0.3564	0.0000	5.6474	127.6902	17.882
0.76500	522.86457	0.3594	0.0000	5.6274	132.9604	18.628
0.77000	524.72119	0.3619	0.0000	5.6091	138.2643	19.383
0.77500	526.36010	0.3640	0.0000	5.5927	143.6039	20.111
0.78000	527.87977	0.3654	0.0000	5.5774	148.9664	20.869
0.78500	529.28464	0.3669	0.0000	5.5644	154.3513	21.616
0.79000	530.58699	0.3679	0.0000	5.5520	159.7537	22.372
0.79500	531.78833	0.3683	0.0000	5.5409	165.1693	23.131
0.80000	532.89131	0.3689	0.0000	5.5304	170.5941	23.890
0.80500	533.89699	0.3690	0.0000	5.5272	174.0244	24.651
0.81000	534.81607	0.3690	0.0000	5.5214	181.4563	25.412
0.81500	535.64925	0.3693	0.0000	5.5169	186.8865	26.179
0.82000	536.39691	0.3694	0.0000	5.5139	192.3118	26.932
0.82500	537.05014	0.3692	0.0000	5.5119	197.7244	27.690
0.83000	537.60914	0.3691	0.0000	5.5117	203.1340	28.447
0.83500	538.08374	0.3690	0.0000	5.5117	208.5253	29.209
0.84000	538.45211	0.3690	0.0000	5.5117	213.8998	29.955
0.84500	538.75711	0.3690	0.0000	5.5117	219.2549	30.704

0.85000	532.15942	0.3697	0.0000	5.5094	224.5442	31.459
0.85500	529.44191	0.3695	0.0000	5.5084	229.4974	32.195
0.86000	526.91407	0.3690	0.0000	5.5084	234.1803	32.935
0.86500	524.00094	0.3684	0.0000	5.5071	238.4351	33.671
0.87000	520.90311	0.3680	0.0000	5.5048	242.4597	34.403
0.87500	517.63670	0.3679	0.0000	5.5035	246.2526	35.130
0.88000	514.21344	0.3686	0.0000	5.5020	249.8119	35.853
0.88500	510.64444	0.3680	0.0000	5.5033	253.1363	36.570
0.89000	506.94049	0.3632	0.0000	5.5044	256.2264	37.283
0.89500	503.11222	0.3642	0.0000	5.5064	271.2747	37.990
0.90000	499.16922	0.3644	0.0000	5.5092	276.2442	38.692
0.90500	495.12104	0.3615	0.0000	5.5122	281.2578	39.384
0.91000	490.97679	0.3634	0.0000	5.5087	286.1843	40.070
0.91500	486.74507	0.3660	0.0000	5.5059	291.0770	40.763
0.92000	482.43414	0.3681	0.0000	5.5077	295.9230	41.462
0.92500	478.05190	0.3600	0.0000	5.5040	300.7255	42.114
0.93000	473.60574	0.3619	0.0000	5.5050	305.4818	42.781
0.93500	469.10290	0.3614	0.0000	5.5047	310.1974	43.441
0.94000	464.55004	0.3552	0.0000	5.4970	314.8657	44.095
0.94500	459.95359	0.3667	0.0000	5.4959	319.4882	44.742
0.95000	455.31974	0.3682	0.0000	5.4954	324.0646	45.383
0.95500	450.65194	0.3694	0.0000	5.4954	328.5945	46.017
0.96000	445.96194	0.3670	0.0000	5.4947	333.0776	46.645
0.96500	441.24841	0.3612	0.0000	5.4931	337.5137	47.264
0.97000	436.51943	0.3634	0.0000	5.4949	341.9025	47.881
0.97500	431.77834	0.3649	0.0000	5.4911	346.2440	48.489
0.98000	427.02992	0.3661	0.0000	5.4839	350.5341	49.090
0.98500	422.27421	0.3674	0.0000	5.4771	354.7844	49.685
0.99000	417.52704	0.3684	0.0000	5.4704	358.9817	50.273
0.99500	412.78006	0.3699	0.0000	5.4650	363.1342	50.854
1.00000	408.04059	0.3712	0.0000	5.4594	367.2393	51.429
1.00500	403.31181	0.3725	0.0000	5.4547	371.2960	51.997
1.01000	398.59673	0.3734	0.0000	5.4507	375.3056	52.559
1.01500	393.88607	0.3751	0.0000	5.4461	379.2640	53.114
1.02000	389.21845	0.3765	0.0000	5.4424	383.1816	53.649
1.02500	384.56024	0.3779	0.0000	5.4392	387.0525	54.184
1.03000	379.92575	0.3794	0.0000	5.4363	390.8749	54.730
1.03500	375.31702	0.3809	0.0000	5.4339	394.6511	55.268
1.04000	370.73590	0.3825	0.0000	5.4318	398.3813	55.790
1.04500	366.18444	0.3841	0.0000	5.4300	402.0659	56.306
1.05000	361.66409	0.3858	0.0000	5.4287	405.7051	56.816
1.05500	357.17639	0.3875	0.0000	5.4274	409.2993	57.319
1.06000	352.72277	0.3891	0.0000	5.4270	412.8447	57.816
1.06500	348.30452	0.3912	0.0000	5.4266	416.3539	58.307
1.07000	343.92240	0.3931	0.0000	5.4266	419.8150	58.799
1.07500	339.57870	0.3951	0.0000	5.4269	423.2324	59.271
1.08000	335.27317	0.3972	0.0000	5.4275	426.6067	59.743
1.08500	331.00711	0.4004	0.0000	5.4285	429.9340	60.210
1.09000	326.78129	0.4016	0.0000	5.4297	433.2269	60.670
1.09500	322.59642	0.4039	0.0000	5.4317	436.4738	61.125
1.10000	318.45311	0.4062	0.0000	5.4330	439.6790	61.574
1.10500	314.35197	0.4077	0.0000	5.4351	442.8430	62.017
1.11000	310.29342	0.4095	0.0000	5.4374	445.9662	62.454
1.11500	306.27749	0.4116	0.0000	5.4401	449.0490	62.884
1.12000	302.30574	0.4136	0.0000	5.4430	452.0919	63.319

1.40000	294.17725	0.54493	0.00000	1.41000	455.0051	81.711
1.40000	291.52317	0.48114	0.00000	1.44000	443.0514	87.644
1.70000	290.01718	0.42116	0.00000	1.70000	507.5458	71.074
1.80000	290.55043	0.38984	0.00000	1.80000	520.9070	74.082
1.90000	175.90909	0.32400	0.00000	1.90000	547.4018	74.714
2.00000	154.63214	0.28007	0.00000	2.00000	549.1075	79.027
2.10000	134.11140	0.25004	0.00000	2.10000	574.4238	81.060
2.20000	120.11104	0.22112	0.00000	2.20000	591.6142	82.452
2.30000	104.24944	0.19554	0.00000	2.30000	602.9210	84.435
2.40000	94.24244	0.17114	0.00000	2.40000	612.9114	85.837
2.50000	81.70124	0.15433	0.00000	2.50000	621.4220	87.082
2.60000	74.44944	0.13754	0.00000	2.60000	629.7146	88.190
2.70000	64.24533	0.12224	0.00000	2.70000	636.7004	89.179
2.80000	59.74502	0.11001	0.00000	2.80000	643.1148	90.064
2.90000	51.49017	0.09440	0.00000	2.90000	648.7049	90.858
3.00000	44.34004	0.08401	0.00000	3.00000	653.4812	91.572
3.10000	38.44644	0.0724	0.00000	3.10000	658.4741	92.215
3.20000	33.74454	0.06454	0.00000	3.20000	662.6744	92.796
3.30000	29.44444	0.05804	0.00000	3.30000	666.1846	93.122
3.40000	26.44444	0.0544	0.00000	3.40000	669.7049	93.799
3.50000	24.44444	0.0484	0.00000	3.50000	672.4846	94.231
3.60000	24.41114	0.0451	0.00000	3.60000	675.4073	94.624
3.70000	22.52211	0.0415	0.00000	3.70000	678.2628	94.989
3.80000	20.65142	0.0380	0.00000	3.80000	680.6374	95.314
3.90000	18.78041	0.0344	0.00000	3.90000	682.7091	95.621
4.00000	17.45152	0.0321	0.00000	4.00000	684.7744	95.884
4.10000	16.04071	0.0296	0.00000	4.10000	686.5944	96.151
4.20000	14.84184	0.0271	0.00000	4.20000	688.2770	96.387
4.30000	13.71629	0.0251	0.00000	4.30000	689.4151	96.604
4.40000	12.60944	0.0234	0.00000	4.40000	690.2480	96.801
4.50000	11.74721	0.0217	0.00000	4.50000	690.7418	96.984
4.60000	10.92144	0.0201	0.00000	4.60000	691.4841	97.159
4.70000	10.14974	0.0187	0.00000	4.70000	692.3140	97.314
4.80000	9.44444	0.0174	0.00000	4.80000	693.2744	97.464
4.90000	8.74444	0.0162	0.00000	4.90000	694.9501	97.603
5.00000	8.20729	0.0151	0.00000	5.00000	697.4618	97.731
5.10000	7.66419	0.0141	0.00000	5.10000	698.7117	97.859
5.20000	7.14499	0.0132	0.00000	5.20000	699.5049	97.964
5.30000	6.70551	0.0123	0.00000	5.30000	700.2440	98.064
5.40000	6.24211	0.0114	0.00000	5.40000	701.5443	98.161
5.50000	5.80119	0.0104	0.00000	5.50000	702.1047	98.259
5.60000	5.31042	0.0092	0.00000	5.60000	702.7476	98.338
5.70000	4.84454	0.0084	0.00000	5.70000	703.3037	98.418
5.80000	4.44734	0.0074	0.00000	5.80000	703.8077	98.493
5.90000	4.00071	0.0064	0.00000	5.90000	704.2480	98.563
6.00000	3.61484	0.0054	0.00000	6.00000	704.7066	98.630
6.10000	3.24451	0.0045	0.00000	6.10000	705.1495	98.689
6.20000	2.84499	0.0037	0.00000	6.20000	705.5844	98.751
6.30000	2.44499	0.0027	0.00000	6.30000	706.2749	98.807
6.40000	2.04499	0.0019	0.00000	6.40000	706.4109	98.858
6.50000	1.64499	0.0014	0.00000	6.50000	706.9274	98.909
6.60000	1.24499	0.0009	0.00000	6.60000	707.2741	98.954
6.70000	0.84499	0.0004	0.00000	6.70000	707.5127	99.004
6.80000	0.44499	0.0001	0.00000	6.80000		99.042
6.90000	0.04499	0.0000	0.00000	6.90000		99.082

7.00000	2.42412	0.0004	0.00000	1.1170	707.7824	99.124
7.10000	2.02419	0.0004	0.00000	1.1327	708.0147	99.156
7.20000	1.62419	0.0004	0.00000	1.1477	708.2810	99.190
7.30000	1.22412	0.0004	0.00000	1.1624	708.5130	99.222
7.40000	0.82412	0.0004	0.00000	1.1740	708.7127	99.253
7.50000	0.42412	0.0004	0.00000	1.1814	708.9418	99.282
7.60000	0.02412	0.0004	0.00000	1.1920	709.1404	99.310
7.70000	0.00000	0.0004	0.00000	1.2044	709.3105	99.337
7.80000	0.00000	0.0012	0.00000	1.2114	709.5111	99.362
7.90000	0.00000	0.0011	0.00000	1.2244	709.6816	99.384
8.00000	0.00000	0.0010	0.00000	1.2323	709.8441	99.409
8.10000	0.00000	0.0009	0.00000	1.2444	710.0041	99.431
8.20000	0.00000	0.0007	0.00000	1.2544	710.1551	99.452
8.30000	0.00000	0.0006	0.00000	1.2644	710.2984	99.479
8.40000	0.00000	0.0005	0.00000	1.2773	710.4355	99.491
8.50000	0.00000	0.0004	0.00000	1.2914	710.5646	99.510
8.60000	0.00000	0.0003	0.00000	1.2703	710.6921	99.527
8.70000	0.00000	0.0022	0.00000	1.2870	710.8123	99.544
8.80000	0.00000	0.0021	0.00000	1.2937	710.9274	99.560
8.90000	0.00000	0.0020	0.00000	1.2904	711.0374	99.574
9.00000	0.00000	0.0019	0.00000	1.2975	711.1414	99.591
9.10000	0.00000	0.0014	0.00000	1.2944	711.2451	99.605
9.20000	0.00000	0.0014	0.00000	1.2915	711.3425	99.614
9.30000	0.00000	0.0017	0.00000	1.2984	711.4340	99.631
9.40000	0.00000	0.0016	0.00000	1.2857	711.5258	99.644
9.50000	0.00000	0.0016	0.00000	1.2830	711.6121	99.654
9.60000	0.00000	0.0015	0.00000	1.2804	711.6950	99.664
9.70000	0.00000	0.0014	0.00000	1.2774	711.7749	99.679
9.80000	0.00000	0.0014	0.00000	1.2750	711.8515	99.699
9.90000	0.00000	0.0013	0.00000	1.2725	711.9253	99.700
10.00000	0.00000	0.0011	0.00000	1.2700	711.9964	99.710
10.10000	0.00000	0.0012	0.00000	1.2676	712.0648	99.720
10.20000	0.00000	0.0012	0.00000	1.2652	712.1308	99.729
10.30000	0.00000	0.0011	0.00000	1.2629	712.1943	99.738
10.40000	0.00000	0.0011	0.00000	1.2604	712.2556	99.744
10.50000	0.00000	0.0011	0.00000	1.2584	712.3146	99.754
10.60000	0.00000	0.0010	0.00000	1.2562	712.3716	99.762
10.70000	0.00000	0.0010	0.00000	1.2540	712.4246	99.770
10.80000	0.00000	0.0010	0.00000	1.2519	712.4797	99.778
10.90000	0.00000	0.0009	0.00000	1.2498	712.5309	99.785
11.00000	0.00000	0.0009	0.00000	1.2478	712.5804	99.792
11.10000	0.00000	0.0009	0.00000	1.2459	712.6282	99.798
11.20000	0.00000	0.0008	0.00000	1.2439	712.6744	99.804
11.30000	0.00000	0.0008	0.00000	1.2420	712.7191	99.811
11.40000	0.00000	0.0008	0.00000	1.2401	712.7623	99.817
11.50000	0.00000	0.0008	0.00000	1.2383	712.8040	99.823
11.60000	0.00000	0.0007	0.00000	1.2365	712.8445	99.829
11.70000	0.00000	0.0007	0.00000	1.2347	712.8836	99.834
11.80000	0.00000	0.0007	0.00000	1.2330	712.9214	99.839
11.90000	0.00000	0.0007	0.00000	1.2312	712.9581	99.845
12.00000	0.00000	0.0006	0.00000	1.2294	712.9936	99.850

VISIBILITY AND OTHER DATA FOR PLANCK RADIATION, MECHANICS DIVISION, D.W.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3124.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE, DEGREES K = 3400.0  
DEGREES FAHRENHEIT = 5660.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 125.47 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 25421.80 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX ) IS 8155.64 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.140 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 203.559 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 33.817 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.4526 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.7741 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 757.66 WATT/CM<sup>2</sup> OR 7.5766E+09 ERG/SEC/CM<sup>2</sup> OR 1.4104E+01 CAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 584.98 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 680 LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (E) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta E = E \cdot M \cdot \Delta T$  .

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3124.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE, DEGREES K = 3400.0  
DEGREES FAHRENHEIT = 5660.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR RATION	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	40.06253	0.0685	0.0000	12.0883	1.4988	0.198
0.35500	44.26664	0.0754	0.0000	11.9181	1.7096	0.224
0.36000	48.44509	0.0832	0.0000	11.7525	1.9418	0.256
0.36500	53.37807	0.0912	0.0000	11.5914	2.1949	0.290
0.37000	58.32804	0.0997	0.0000	11.4349	2.4741	0.327
0.37500	63.52064	0.1086	0.0000	11.2825	2.7806	0.367
0.38000	68.94461	0.1179	0.0000	11.1341	3.1117	0.411
0.38500	74.65154	0.1274	0.0000	10.9895	3.4706	0.459
0.39000	80.57614	0.1377	0.0000	10.8484	3.8586	0.509
0.39500	86.73105	0.1483	0.0000	10.7113	4.2768	0.564
0.40000	93.11474	0.1592	25.3272	10.5775	4.7243	0.624
0.40500	99.71404	0.1705	34.2444	10.4469	5.2043	0.687
0.41000	106.52269	0.1821	46.9225	10.3194	5.7218	0.753
0.41500	113.53147	0.1941	149.8437	10.1953	6.2739	0.824
0.42000	120.73225	0.2064	328.3917	10.0740	6.8595	0.905
0.42500	128.11199	0.2190	435.9578	9.9555	7.4815	0.987
0.43000	135.66642	0.2319	1070.1399	9.8398	8.1409	1.074
0.43500	143.39012	0.2451	1437.9745	9.7267	8.8384	1.167
0.44000	151.24294	0.2585	2365.4395	9.6163	9.5749	1.264
0.44500	159.24408	0.2727	3140.2933	9.5083	10.3511	1.366
0.45000	167.37214	0.2861	4324.8970	9.4027	11.1676	1.474
0.45500	175.61564	0.3002	5732.0959	9.2995	12.0250	1.587
0.46000	183.96299	0.3145	7505.6898	9.1985	12.9239	1.706
0.46500	192.40242	0.3289	9681.6899	9.0997	13.8648	1.830
0.47000	200.92233	0.3435	12433.0739	9.0030	14.8481	1.960
0.47500	209.51110	0.3582	15956.3655	8.9083	15.8742	2.095
0.48000	218.15720	0.3729	20420.2145	8.8156	16.9433	2.236
0.48500	226.94922	0.3874	26069.5124	8.7249	18.0558	2.383
0.49000	235.75701	0.4027	33319.0571	8.6360	19.2119	2.536
0.49500	244.58623	0.4177	42864.5907	8.5489	20.4116	2.694
0.50000	253.04977	0.4326	55580.5278	8.4636	21.6551	2.858
0.50500	261.45449	0.4474	72470.6477	8.3799	22.9475	3.028
0.51000	270.61151	0.4626	92559.6820	8.2979	24.2737	3.204
0.51500	279.35030	0.4773	115494.5863	8.2175	25.6446	3.385
0.52000	288.06104	0.4924	139075.8895	8.1387	27.0671	3.572
0.52500	296.73443	0.5073	164011.0743	8.0614	28.5291	3.765
0.53000	305.36124	0.5220	178990.9454	7.9855	30.0344	3.964
0.53500	313.93275	0.5367	193328.7983	7.9111	31.5826	4.168
0.54000	322.44055	0.5512	208173.4384	7.8381	33.1736	4.378
0.54500	330.87454	0.5656	224496.1521	7.7664	34.8069	4.594
0.55000	339.23315	0.5799	242525.1502	7.6960	36.4822	4.815
0.55500	347.50294	0.5940	262302.0000	7.6269	38.1991	5.042
0.56000	355.67800	0.6080	284632.0000	7.5591	39.9571	5.274
0.56500	363.75473	0.6218	242150.7960	7.4925	41.7557	5.511
0.57000	371.72391	0.6354	240630.1918	7.4270	43.5945	5.754

0.95000	378.54970	0.4682	235175.1130	0.4682	35.4728	4.002
0.95000	378.51941	0.4682	229118.2748	0.4682	37.1901	4.255
0.95000	378.49519	0.4682	219610.1548	0.4682	39.1858	4.513
0.95000	378.47157	0.4682	207151.5578	0.4682	41.1192	4.776
0.95000	378.44845	0.4682	191641.7558	0.4682	43.1698	5.044
0.95000	378.42483	0.4682	178925.0088	0.4682	45.4348	5.317
0.95000	378.40121	0.4682	161507.4688	0.4682	47.5195	5.594
0.95000	378.37759	0.4682	147825.1178	0.4682	49.4771	5.877
0.95000	378.35397	0.4682	131248.5657	0.4682	51.8498	6.163
0.95000	378.33035	0.4682	115148.4082	0.4682	54.0551	6.454
0.95000	378.30673	0.4682	98829.2914	0.4682	56.2036	6.750
0.95000	378.28311	0.4682	82189.1600	0.4682	58.3442	7.049
0.95000	378.25949	0.4682	64385.4811	0.4682	60.4711	7.351
0.95000	378.23587	0.4682	45866.0244	0.4682	62.5983	7.661
0.95000	378.21225	0.4682	26789.0402	0.4682	64.7193	7.974
0.95000	378.18863	0.4682	7010.9518	0.4682	66.8348	8.290
0.95000	378.16501	0.4682	0.0000	0.4682	68.9458	8.611
0.95000	378.14139	0.4682	0.0000	0.4682	71.0523	8.937
0.95000	378.11777	0.4682	0.0000	0.4682	73.1543	9.268
0.95000	378.09415	0.4682	0.0000	0.4682	75.2518	9.604
0.95000	378.07053	0.4682	0.0000	0.4682	77.3448	9.945
0.95000	378.04691	0.4682	0.0000	0.4682	79.4333	10.291
0.95000	378.02329	0.4682	0.0000	0.4682	81.5173	10.642
0.95000	378.00000	0.4682	0.0000	0.4682	83.5968	10.998
0.95000	377.97638	0.4682	0.0000	0.4682	85.6718	11.259
0.95000	377.95276	0.4682	0.0000	0.4682	87.7423	11.525
0.95000	377.92914	0.4682	0.0000	0.4682	89.8083	11.796
0.95000	377.90552	0.4682	0.0000	0.4682	91.8698	12.071
0.95000	377.88190	0.4682	0.0000	0.4682	93.9268	12.350
0.95000	377.85828	0.4682	0.0000	0.4682	95.9793	12.633
0.95000	377.83466	0.4682	0.0000	0.4682	98.0273	12.920
0.95000	377.81104	0.4682	0.0000	0.4682	100.0708	13.211
0.95000	377.78742	0.4682	0.0000	0.4682	102.1108	13.506
0.95000	377.76380	0.4682	0.0000	0.4682	104.1473	13.805
0.95000	377.74018	0.4682	0.0000	0.4682	106.1803	14.108
0.95000	377.71656	0.4682	0.0000	0.4682	108.2098	14.415
0.95000	377.69294	0.4682	0.0000	0.4682	110.2358	14.726
0.95000	377.66932	0.4682	0.0000	0.4682	112.2583	15.041
0.95000	377.64570	0.4682	0.0000	0.4682	114.2773	15.360
0.95000	377.62208	0.4682	0.0000	0.4682	116.2928	15.683
0.95000	377.59846	0.4682	0.0000	0.4682	118.3048	16.010
0.95000	377.57484	0.4682	0.0000	0.4682	120.3133	16.341
0.95000	377.55122	0.4682	0.0000	0.4682	122.3183	16.676
0.95000	377.52760	0.4682	0.0000	0.4682	124.3198	17.015
0.95000	377.50398	0.4682	0.0000	0.4682	126.3178	17.358
0.95000	377.48036	0.4682	0.0000	0.4682	128.3123	17.705
0.95000	377.45674	0.4682	0.0000	0.4682	130.3033	18.056
0.95000	377.43312	0.4682	0.0000	0.4682	132.2908	18.411
0.95000	377.40950	0.4682	0.0000	0.4682	134.2748	18.769
0.95000	377.38588	0.4682	0.0000	0.4682	136.2553	19.131
0.95000	377.36226	0.4682	0.0000	0.4682	138.2323	19.497
0.95000	377.33864	0.4682	0.0000	0.4682	140.2058	19.867
0.95000	377.31502	0.4682	0.0000	0.4682	142.1758	20.241
0.95000	377.29140	0.4682	0.0000	0.4682	144.1423	20.619
0.95000	377.26778	0.4682	0.0000	0.4682	146.1053	20.999
0.95000	377.24416	0.4682	0.0000	0.4682	148.0648	21.382
0.95000	377.22054	0.4682	0.0000	0.4682	150.0208	21.768
0.95000	377.19692	0.4682	0.0000	0.4682	151.9733	22.157
0.95000	377.17330	0.4682	0.0000	0.4682	153.9223	22.549
0.95000	377.14968	0.4682	0.0000	0.4682	155.8678	22.944
0.95000	377.12606	0.4682	0.0000	0.4682	157.8098	23.342
0.95000	377.10244	0.4682	0.0000	0.4682	159.7483	23.743
0.95000	377.07882	0.4682	0.0000	0.4682	161.6833	24.147
0.95000	377.05520	0.4682	0.0000	0.4682	163.6148	24.554
0.95000	377.03158	0.4682	0.0000	0.4682	165.5428	24.963
0.95000	377.00796	0.4682	0.0000	0.4682	167.4673	25.375
0.95000	376.98434	0.4682	0.0000	0.4682	169.3883	25.789
0.95000	376.96072	0.4682	0.0000	0.4682	171.3058	26.205
0.95000	376.93710	0.4682	0.0000	0.4682	173.2198	26.623
0.95000	376.91348	0.4682	0.0000	0.4682	175.1303	27.043
0.95000	376.88986	0.4682	0.0000	0.4682	177.0373	27.465
0.95000	376.86624	0.4682	0.0000	0.4682	178.9408	27.889
0.95000	376.84262	0.4682	0.0000	0.4682	180.8408	28.315
0.95000	376.81900	0.4682	0.0000	0.4682	182.7373	28.743
0.95000	376.79538	0.4682	0.0000	0.4682	184.6303	29.173
0.95000	376.77176	0.4682	0.0000	0.4682	186.5198	29.605
0.95000	376.74814	0.4682	0.0000	0.4682	188.4058	30.039
0.95000	376.72452	0.4682	0.0000	0.4682	190.2883	30.475
0.95000	376.70090	0.4682	0.0000	0.4682	192.1673	30.913
0.95000	376.67728	0.4682	0.0000	0.4682	194.0428	31.353
0.95000	376.65366	0.4682	0.0000	0.4682	195.9148	31.795
0.95000	376.63004	0.4682	0.0000	0.4682	197.7833	32.239
0.95000	376.60642	0.4682	0.0000	0.4682	199.6483	32.685
0.95000	376.58280	0.4682	0.0000	0.4682	201.5098	33.133
0.95000	376.55918	0.4682	0.0000	0.4682	203.3678	33.583
0.95000	376.53556	0.4682	0.0000	0.4682	205.2223	34.035
0.95000	376.51194	0.4682	0.0000	0.4682	207.0733	34.489
0.95000	376.48832	0.4682	0.0000	0.4682	208.9208	34.945
0.95000	376.46470	0.4682	0.0000	0.4682	210.7648	35.403
0.95000	376.44108	0.4682	0.0000	0.4682	212.6053	35.863
0.95000	376.41746	0.4682	0.0000	0.4682	214.4423	36.325
0.95000	376.39384	0.4682	0.0000	0.4682	216.2758	36.789
0.95000	376.37022	0.4682	0.0000	0.4682	218.1058	37.255
0.95000	376.34660	0.4682	0.0000	0.4682	219.9323	37.723
0.95000	376.32298	0.4682	0.0000	0.4682	221.7553	38.193
0.95000	376.29936	0.4682	0.0000	0.4682	223.5748	38.665
0.95000	376.27574	0.4682	0.0000	0.4682	225.3908	39.139
0.95000	376.25212	0.4682	0.0000	0.4682	227.2033	39.615
0.95000	376.22850	0.4682	0.0000	0.4682	229.0123	40.093
0.95000	376.20488	0.4682	0.0000	0.4682	230.8178	40.573
0.95000	376.18126	0.4682	0.0000	0.4682	232.6198	41.055
0.95000	376.15764	0.4682	0.0000	0.4682	234.4183	41.539
0.95000	376.13402	0.4682	0.0000	0.4682	236.2133	42.025
0.95000	376.11040	0.4682	0.0000	0.4682	238.0048	42.513
0.95000	376.08678	0.4682	0.0000	0.4682	239.7928	43.003
0.95000	376.06316	0.4682	0.0000	0.4682	241.5773	43.495
0.95000	376.03954	0.4682	0.0000	0.4682	243.3583	43.989
0.95000	376.01592	0.4682	0.0000	0.4682	245.1358	44.485
0.95000	375.99230	0.4682	0.0000	0.4682	246.9098	44.983
0.95000	375.96868	0.4682	0.0000	0.4682	248.6803	45.483
0.95000	375.94506	0.4682	0.0000	0.4682	250.4473	45.985
0.95000	375.92144	0.4682	0.0000	0.4682	252.2108	46.489
0.95000	375.89782	0.4682	0.0000	0.4682	253.9708	46.995
0.95000	375.87420	0.4682	0.0000	0.4682	255.7273	47.503
0.95000	375.85058	0.4682	0.0000	0.4682	257.4803	48.013
0.95000	375.82696	0.4682	0.0000	0.4682	259.2298	48.525
0.95000	375.80334	0.4682	0.0000	0.4682	260.9758	49.039
0.95000	375.77972	0.4682	0.0000	0.4682	262.7183	49.555
0.95000	375.75610	0.4682	0.0000	0.4682	264.4573	50.073
0.95000	375.73248	0.4682	0.0000	0.4682	266.1928	50.593
0.95000	375.70886	0.4682	0.0000	0.4682	267.9248	51.115
0.95000	375.68524	0.4682	0.0000	0.4682	269.6533	51.639
0.95000	375.66162	0.4682	0.0000	0.4682	271.3783	52.165
0.95000	375.63800	0.4682	0.0000	0.4682	273.1008	52.693
0.95000	375.61438	0.4682	0.0000	0.4682	274.8198	53.223
0.95000	375.59076	0.4682	0.0000	0.4682	276.5353	53.755
0.95000	375.56714	0.4682	0.0000	0.4682	278.2473	54.289
0.95000	375.54352	0.4682	0.0000	0.4682	279.9558	54.825
0.95000	375.51990	0.4682	0.0000	0.4682	281.6608	55.363
0.95000	375.49628	0.4682	0.0000	0.4682	283.3623	55.903
0.95000	375.47266	0.4682	0.0000	0.4682	285.0603	56.445
0.95000	375.44904	0.4682	0.0000	0.4682	286.7548	56.989
0.95000	375.42542	0.4682	0.0000	0.4682	288.4458	57.535
0.95000	375.40180	0.4682	0.0000	0.4682	290.1333	58.083
0.95000	375.37818	0.4682	0.0000	0.4682	291.8173	58.633
0.95000	375.35456	0.4682	0.0000	0.4682	293.4978	59.185
0.95000	375.33094	0.4682	0.0000	0.4682	295.1748	59.739
0.95000	375.30732	0.4682	0.0000	0.4682	296.8483	60.295
0.95000	375.28370	0.4682	0.0000	0.4682	298.5183	60.853
0.95000	375.26008	0.4682	0.0000	0.4682	300.1848	61.413
0.95000						

1.50000	312.01925	0.4334	0.0000	2.9993	489.8643	64.459
1.60000	272.85643	0.4666	0.0000	2.8466	519.0672	68.500
1.70000	234.48977	0.4077	0.0000	2.7141	564.5997	71.874
1.80000	208.57795	0.3564	0.0000	2.5989	566.9138	74.824
1.90000	182.66599	0.3173	0.0000	2.4940	586.4447	77.402
2.00000	160.27248	0.2740	0.0000	2.4053	603.5843	79.661
2.10000	140.93492	0.2409	0.0000	2.3247	618.6010	81.646
2.20000	124.23105	0.2124	0.0000	2.2523	631.8300	83.393
2.30000	109.78654	0.1877	0.0000	2.1870	643.5225	84.935
2.40000	97.27574	0.1663	0.0000	2.1279	653.8607	86.308
2.50000	86.41824	0.1477	0.0000	2.0742	663.0327	87.510
2.60000	76.97469	0.1314	0.0000	2.0251	671.1915	88.567
2.70000	68.74124	0.1175	0.0000	1.9802	678.4679	89.508
2.80000	61.54509	0.1052	0.0000	1.9389	684.9743	90.408
2.90000	55.23954	0.0944	0.0000	1.9004	690.8066	91.176
3.00000	49.76034	0.0850	0.0000	1.8654	696.0477	91.868
3.10000	44.82199	0.0766	0.0000	1.8336	700.7487	92.491
3.20000	40.31474	0.0693	0.0000	1.8027	705.0311	93.053
3.30000	36.20234	0.0627	0.0000	1.7744	708.8881	93.563
3.40000	32.31940	0.5700	0.0000	1.7480	712.3859	94.024
3.50000	30.31142	0.0514	0.0000	1.7231	715.5644	94.444
3.60000	27.62965	0.0472	0.0000	1.7002	718.4591	94.826
3.70000	25.23362	0.0431	0.0000	1.6784	721.1000	95.174
3.80000	23.08820	0.0395	0.0000	1.6579	723.5141	95.493
3.90000	21.16307	0.0362	0.0000	1.6386	725.7240	95.785
4.00000	19.43203	0.0337	0.0000	1.6204	727.7532	96.052
4.10000	17.87240	0.0306	0.0000	1.6032	729.6171	96.298
4.20000	16.46447	0.0281	0.0000	1.5869	731.3359	96.525
4.30000	15.19104	0.0260	0.0000	1.5714	732.9145	96.734
4.40000	14.03727	0.0240	0.0000	1.5567	734.3750	96.926
4.50000	12.98994	0.0222	0.0000	1.5427	735.7255	97.105
4.60000	12.03769	0.0204	0.0000	1.5294	736.9761	97.270
4.70000	11.17039	0.0191	0.0000	1.5167	738.1359	97.423
4.80000	10.37920	0.0177	0.0000	1.5044	739.2127	97.565
4.90000	9.65412	0.0165	0.0000	1.4931	740.2140	97.697
5.00000	8.98444	0.0154	0.0000	1.4821	741.1440	97.820
5.10000	8.36467	0.0143	0.0000	1.4714	742.0140	97.935
5.20000	7.793234	0.0134	0.0000	1.4614	742.8254	98.042
5.30000	7.262114	0.0125	0.0000	1.4517	743.5828	98.142
5.40000	6.770574	0.0117	0.0000	1.4424	744.2910	98.235
5.50000	6.31729	0.0110	0.0000	1.4335	744.9541	98.323
5.60000	5.894601	0.0103	0.0000	1.4249	745.5756	98.405
5.70000	5.504619	0.0097	0.0000	1.4166	746.1586	98.482
5.80000	5.14639	0.0091	0.0000	1.4087	746.7041	98.554
5.90000	4.819910	0.0085	0.0000	1.4010	747.2200	98.622
6.00000	4.52484	0.0079	0.0000	1.3937	747.7049	98.686
6.10000	4.25991	0.0074	0.0000	1.3864	748.1608	98.746
6.20000	4.02484	0.0071	0.0000	1.3797	748.5959	98.803
6.30000	3.817212	0.0067	0.0000	1.3731	749.0059	98.856
6.40000	3.631834	0.0064	0.0000	1.3667	749.3785	98.907
6.50000	3.46454	0.0060	0.0000	1.3605	749.7400	98.954
6.60000	3.32439	0.0057	0.0000	1.3545	750.0819	98.999
6.70000	3.198491	0.0054	0.0000	1.3487	750.4053	99.042
6.80000	3.084104	0.0051	0.0000	1.3431	750.7116	99.083
6.90000	2.972600	0.0048	0.0000	1.3377	751.0019	99.121
7.00000	2.864043	0.0044	0.0000	1.3325	751.2772	99.157
7.10000	2.758444	0.0044	0.0000	1.3274	751.5384	99.192
7.20000	2.654734	0.0041	0.0000	1.3224	751.7844	99.224
7.30000	2.552771	0.0039	0.0000	1.3174	752.0271	99.254
7.40000	2.451515	0.0037	0.0000	1.3130	752.2642	99.285
7.50000	2.350974	0.0036	0.0000	1.3084	752.4954	99.313
7.60000	2.251044	0.0034	0.0000	1.3040	752.7204	99.340
7.70000	2.151725	0.0032	0.0000	1.2998	752.9397	99.366
7.80000	2.052929	0.0031	0.0000	1.2954	753.1539	99.390
7.90000	1.954644	0.0029	0.0000	1.2916	753.3633	99.413
8.00000	1.856869	0.0027	0.0000	1.2874	753.5683	99.435
8.10000	1.759594	0.0026	0.0000	1.2834	753.7692	99.456
8.20000	1.662819	0.0024	0.0000	1.2791	753.9662	99.477
8.30000	1.566544	0.0022	0.0000	1.2754	754.1593	99.498
8.40000	1.470769	0.0022	0.0000	1.2714	754.3484	99.514
8.50000	1.375494	0.0021	0.0000	1.2674	754.5334	99.532
8.60000	1.280719	0.0020	0.0000	1.2634	754.7144	99.549
8.70000	1.186444	0.0019	0.0000	1.2594	754.8914	99.565
8.80000	1.092669	0.0018	0.0000	1.2554	755.0644	99.580
8.90000	1.000394	0.0017	0.0000	1.2514	755.2334	99.595
9.00000	0.908619	0.0016	0.0000	1.2474	755.3984	99.609
9.10000	0.817344	0.0015	0.0000	1.2434	755.5594	99.623
9.20000	0.726569	0.0014	0.0000	1.2394	755.7164	99.636
9.30000	0.636294	0.0014	0.0000	1.2354	755.8694	99.649
9.40000	0.546519	0.0013	0.0000	1.2314	756.0184	99.661
9.50000	0.457244	0.0012	0.0000	1.2274	756.1634	99.672
9.60000	0.368469	0.0011	0.0000	1.2234	756.3044	99.684
9.70000	0.280194	0.0010	0.0000	1.2194	756.4414	99.695
9.80000	0.192419	0.0009	0.0000	1.2154	756.5744	99.705
9.90000	0.105144	0.0008	0.0000	1.2114	756.7034	99.715
10.00000	0.018369	0.0007	0.0000	1.2074	756.8284	99.724
10.10000	0.000000	0.0006	0.0000	1.2034	756.9494	99.733
10.20000	0.000000	0.0005	0.0000	1.2000	757.0664	99.742
10.30000	0.000000	0.0004	0.0000	1.1966	757.1794	99.751
10.40000	0.000000	0.0003	0.0000	1.1932	757.2884	99.759
10.50000	0.000000	0.0002	0.0000	1.1898	757.3934	99.767
10.60000	0.000000	0.0001	0.0000	1.1864	757.4944	99.775
10.70000	0.000000	0.0000	0.0000	1.1830	757.5914	99.783
10.80000	0.000000	0.0000	0.0000	1.1796	757.6844	99.791
10.90000	0.000000	0.0000	0.0000	1.1762	757.7734	99.799
11.00000	0.000000	0.0000	0.0000	1.1728	757.8584	99.807
11.10000	0.000000	0.0000	0.0000	1.1694	757.9394	99.815
11.20000	0.000000	0.0000	0.0000	1.1660	758.0164	99.823
11.30000	0.000000	0.0000	0.0000	1.1626	758.0894	99.831
11.40000	0.000000	0.0000	0.0000	1.1592	758.1584	99.839
11.50000	0.000000	0.0000	0.0000	1.1558	758.2234	99.847
11.60000	0.000000	0.0000	0.0000	1.1524	758.2844	99.855
11.70000	0.000000	0.0000	0.0000	1.1490	758.3414	99.863
11.80000	0.000000	0.0000	0.0000	1.1456	758.3944	99.871
11.90000	0.000000	0.0000	0.0000	1.1422	758.4434	99.879
12.00000	0.000000	0.0000	0.0000	1.1388	758.4884	99.887

VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, D.U.C., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3450.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3650.0  
DEGREES FAHRENHEIT = 5750.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRONS IS 111.81 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 28841.60 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 9.4614 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.1781.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 204.648 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 15.558 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER IS 0.4905 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.0384 MICRONS.  
I.E., THIS WAVELENGTH THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 631.22 WATT/CM<sup>2</sup> OR 4.32254E+09 ENCH/SEC/CM<sup>2</sup> OR 1.50954E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 402.28 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT OF LUMENS PER WATT RADIANT EMITTANCE X VISIBILITY FACTOR, WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQ. CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE MAY BE CALCULATED USING THE TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA FOR WATER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3450.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3650.0  
DEGREES FAHRENHEIT = 5750.0

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATER	POWER FROM TABLE 1	% TOTAL POWER ZERO TO L
0.35000	47.74355	0.0750	0.0000	11.3131	1.4192	0.224
0.36000	52.54864	0.0814	0.0000	11.2453	2.0699	0.254
0.37000	57.75854	0.0917	0.0000	11.1822	2.3455	0.292
0.38000	63.40249	0.1003	0.0000	11.1234	2.6476	0.330
0.39000	69.51641	0.1074	0.0000	11.0682	2.9774	0.371
0.40000	76.14028	0.1142	0.0000	11.0160	3.3344	0.415
0.41000	83.30428	0.1208	0.0000	10.9672	3.7250	0.460
0.42000	91.04933	0.1271	0.0000	10.9213	4.1473	0.514
0.43000	99.41634	0.1331	0.0000	10.8776	4.6016	0.573
0.44000	108.44534	0.1389	0.0000	10.8357	5.0907	0.638
0.45000	118.17633	0.1445	0.0000	10.7952	5.6152	0.699
0.46000	128.65032	0.1498	0.0000	10.7559	6.1745	0.760
0.47000	139.90831	0.1549	0.0000	10.7177	6.7747	0.844
0.48000	151.99030	0.1600	0.0000	10.6804	7.4139	0.923
0.49000	164.93629	0.1649	0.0000	10.6440	8.0921	1.007
0.50000	178.78628	0.1696	0.0000	10.6084	8.8114	1.097
0.51000	193.58027	0.1741	0.0000	10.5735	9.5724	1.192
0.52000	209.35826	0.1784	0.0000	10.5392	10.3752	1.292
0.53000	226.16025	0.1825	0.0000	10.5054	11.2215	1.397
0.54000	244.02624	0.1864	0.0000	10.4720	12.1150	1.504
0.55000	263.00623	0.1901	0.0000	10.4389	13.0514	1.625
0.56000	283.14022	0.1936	0.0000	10.4060	14.0333	1.747
0.57000	304.46821	0.1969	0.0000	10.3732	15.0611	1.875
0.58000	327.03020	0.1999	0.0000	10.3404	16.1354	2.009
0.59000	350.86819	0.2027	0.0000	10.3075	17.2545	2.148
0.60000	376.02218	0.2053	0.0000	10.2744	18.4248	2.294
0.61000	402.52417	0.2077	0.0000	10.2410	19.6444	2.445
0.62000	430.40616	0.2099	0.0000	10.2074	20.9037	2.602
0.63000	459.70815	0.2119	0.0000	10.1735	22.2147	2.764
0.64000	490.46014	0.2137	0.0000	10.1392	23.5736	2.935
0.65000	522.69213	0.2153	0.0000	10.1044	24.9803	3.110
0.66000	556.44412	0.2167	0.0000	10.0690	26.4347	3.291
0.67000	591.74611	0.2179	0.0000	10.0330	27.9369	3.478
0.68000	628.62810	0.2189	0.0000	10.0000	29.4866	3.671
0.69000	667.13009	0.2197	0.0000	9.9660	31.0837	3.870
0.70000	707.28208	0.2203	0.0000	9.9309	32.7274	4.075
0.71000	749.12407	0.2207	0.0000	9.8947	34.4184	4.285
0.72000	792.69606	0.2209	0.0000	9.8574	36.1554	4.501
0.73000	838.03805	0.2209	0.0000	9.8189	37.9392	4.723
0.74000	885.18004	0.2207	0.0000	9.7792	39.7681	4.951
0.75000	934.16203	0.2203	0.0000	9.7382	41.6420	5.184
0.76000	985.02402	0.2197	0.0000	9.6957	43.5605	5.423
0.77000	1037.79601	0.2189	0.0000	9.6516	45.5230	5.668
0.78000	1092.50800	0.2179	0.0000	9.6059	47.5289	5.917
0.79000	1149.18000	0.2167	0.0000	9.5584	49.5776	6.172



0.575000	422.12500	0.4711	242771.2314	7.255AA	51.4A86	6.613
0.580000	410.54214	0.4882	246778.7272	7.1944	53.800A	6.408
0.585000	418.61123	0.4970	248175.9636	7.1132	55.9715	6.960
0.590000	426.53455	0.509A	250855.1247	7.0731	58.18A5	7.244
0.595000	434.10179	0.5210	254703.0272	7.0145	60.448A	7.528
0.600000	441.71049	0.5340	258196.7678	6.9559	62.7282	7.811
0.605000	449.35854	0.5450	260845.8852	6.8983	65.0575	8.100
0.610000	456.94124	0.5574	263101.1752	6.8427	67.4225	8.386
0.615000	464.56819	0.568A	265044.8074	6.7875	69.821A	8.693
0.620000	472.10061	0.579A	267110.76A0	6.7332	72.2588	8.98A
0.625000	479.6724A	0.590A	268833.1268	6.6794	74.7103	9.304
0.630000	487.19062	0.6010	270811.4905	6.6277	77.2342	9.614
0.635000	494.7491A	0.6112	272128.1747	6.5754	79.7707	9.931
0.640000	502.34582	0.6212	274141.5627	6.5244	82.3384	10.251
0.645000	510.4914A	0.631A	276055.6441	6.4745	84.937A	10.575
0.650000	518.68731	0.6402	27847.2846	6.4252	87.56AA	10.902
0.655000	526.9314A	0.6492	28434.1820	6.3747	90.2281	11.233
0.660000	535.19180	0.6587	27305.8544	6.3244	92.9172	11.567
0.665000	543.46502	0.6685	24A55.135A	6.2713	95.6232	11.905
0.670000	550.4304A	0.677	11977.16A4	6.215A	98.3425	12.244
0.675000	555.41605	0.6824	8A66.7071	6.1600	101.1272	12.590
0.680000	560.22214	0.6903	4A7A.1772	6.1051	103.914A	12.937
0.685000	568.45402	0.697A	4570.76A5	6.0509	106.7201	13.284
0.690000	576.30000	0.7047	3174.41A8	6.0077	109.548A	13.641
0.695000	573.57314	0.7115	2233.1733	6.0143	112.421A	13.99A
0.700000	577.67123	0.7180	1410.5474	6.0723	115.3500	14.353
0.705000	581.50504	0.7242	1.44.9054	6.1213	118.3981	14.715
0.710000	585.34427	0.7302	835.4745	6.1705	121.5157	15.079
0.715000	588.22551	0.7359	401.7055	6.2187	124.7014	15.444
0.720000	592.13752	0.7413	65.40A5	6.2664	127.9067	15.819
0.725000	595.58113	0.7465	281.49A4	6.3125	131.1974	16.192
0.730000	598.45927	0.7513	201.5442	6.3577	134.5202	16.553
0.735000	601.57433	0.7560	141.4221	6.4024	137.880A	16.927
0.740000	604.12747	0.7606	121.282A	6.4467	141.2756	17.302
0.745000	606.92143	0.7654	42.5414	6.4917	144.7034	17.679
0.750000	609.34914	0.7699	41.4384	6.5373	148.244A	18.05A
0.755000	611.77134	0.7745	0.0000	6.5831	151.8A88	18.419
0.760000	614.55A42	0.7788	0.0000	6.6283	155.3181	18.786
0.765000	617.50427	0.7834	0.0000	6.6731	158.810A	19.157
0.770000	620.4A715	0.7877	0.0000	6.7177	162.3227	19.531
0.775000	623.48470	0.7919	0.0000	6.7625	165.8749	19.908
0.780000	626.50497	0.7960	0.0000	6.8077	169.4639	20.289
0.785000	629.56890	0.8000	0.0000	6.8534	173.0872	20.671
0.790000	632.67851	0.8039	0.0000	6.8996	176.7455	21.056
0.795000	635.83412	0.8077	0.0000	6.9462	180.4387	21.444
0.800000	638.94645	0.8115	0.0000	6.9933	184.1672	21.835
0.805000	642.01703	0.8152	0.0000	7.0409	187.9307	22.230
0.810000	645.04645	0.8189	0.0000	7.0890	191.7292	22.628
0.815000	648.03455	0.8225	0.0000	7.1376	195.5627	23.031
0.820000	651.08203	0.8260	0.0000	7.1867	199.4312	23.437
0.825000	654.19857	0.8295	0.0000	7.2363	203.3346	23.847
0.830000	657.28512	0.8329	0.0000	7.2865	207.2729	24.260
0.835000	660.34167	0.8363	0.0000	7.3373	211.2462	24.677
0.840000	663.36822	0.8396	0.0000	7.3887	215.2545	25.097
0.845000	666.36477	0.8429	0.0000	7.4407	219.2977	25.520
0.850000	669.33132	0.8461	0.0000	7.4933	223.3759	25.947
0.855000	672.26787	0.8493	0.0000	7.5465	227.4890	26.377
0.860000	675.17442	0.8525	0.0000	7.6003	231.6372	26.810
0.865000	678.05097	0.8557	0.0000	7.6547	235.8205	27.247
0.870000	680.89752	0.8589	0.0000	7.7097	240.0388	27.688
0.875000	683.71407	0.8620	0.0000	7.7653	244.2921	28.133
0.880000	686.50062	0.8651	0.0000	7.8215	248.5804	28.583
0.885000	689.25717	0.8682	0.0000	7.8783	252.9037	29.037
0.890000	692.08372	0.8713	0.0000	7.9357	257.2620	29.496
0.895000	694.88027	0.8744	0.0000	7.9937	261.6553	29.959
0.900000	697.64682	0.8775	0.0000	8.0523	266.0836	30.426
0.905000	700.38337	0.8806	0.0000	8.1115	270.5469	30.897
0.910000	703.09092	0.8837	0.0000	8.1713	275.0452	31.372
0.915000	705.76947	0.8868	0.0000	8.2317	279.5785	31.851
0.920000	708.41802	0.8899	0.0000	8.2927	284.1468	32.334
0.925000	711.03657	0.8930	0.0000	8.3543	288.7501	32.821
0.930000	713.62512	0.8961	0.0000	8.4165	293.3884	33.312
0.935000	716.18367	0.8992	0.0000	8.4793	298.0617	33.807
0.940000	718.71222	0.9023	0.0000	8.5427	302.7700	34.306

0.945000	721.21077	0.9054	0.0000	8.6067	307.5133	34.809
0.950000	723.70932	0.9085	0.0000	8.6717	312.2916	35.317
0.955000	726.18787	0.9116	0.0000	8.7383	317.1049	35.830
0.960000	728.64642	0.9147	0.0000	8.8065	321.9532	36.347
0.965000	731.08497	0.9178	0.0000	8.8763	326.8365	36.868
0.970000	733.50352	0.9209	0.0000	8.9477	331.7548	37.393
0.975000	735.90207	0.9240	0.0000	9.0207	336.7081	37.922
0.980000	738.28062	0.9271	0.0000	9.0953	341.6964	38.456
0.985000	740.63917	0.9302	0.0000	9.1715	346.7197	38.995
0.990000	742.97772	0.9333	0.0000	9.2493	351.7780	39.539
0.995000	745.29627	0.9364	0.0000	9.3287	356.8713	40.088
1.000000	747.59482	0.9395	0.0000	9.4097	361.9996	40.642
1.005000	749.87337	0.9426	0.0000	9.4923	367.1629	41.201
1.010000	752.13192	0.9457	0.0000	9.5765	372.3612	41.765
1.015000	754.37047	0.9488	0.0000	9.6623	377.5945	42.335
1.020000	756.58902	0.9519	0.0000	9.7497	382.8628	42.910
1.025000	758.78757	0.9550	0.0000	9.8387	388.1661	43.490
1.030000	760.96612	0.9581	0.0000	9.9293	393.5044	44.075
1.035000	763.12467	0.9612	0.0000	10.0215	398.8777	44.666
1.040000	765.26322	0.9643	0.0000	10.1153	404.2860	45.262
1.045000	767.38177	0.9674	0.0000	10.2107	409.7293	45.863
1.050000	769.48032	0.9705	0.0000	10.3077	415.2076	46.469
1.055000	771.56887	0.9736	0.0000	10.4063	420.7209	47.080
1.060000	773.64742	0.9767	0.0000	10.5065	426.2692	47.696
1.065000	775.70597	0.9798	0.0000	10.6083	431.8525	48.317
1.070000	777.74452	0.9829	0.0000	10.7117	437.4708	48.943
1.075000	779.76307	0.9860	0.0000	10.8167	443.1241	49.575
1.080000	781.76162	0.9891	0.0000	10.9233	448.8124	50.213
1.085000	783.74017	0.9922	0.0000	11.0315	454.5357	50.857
1.090000	785.69872	0.9953	0.0000	11.1413	460.2940	51.507
1.095000	787.63727	0.9984	0.0000	11.2527	466.0873	52.162
1.100000	789.55582	1.0015	0.0000	11.3657	471.9156	52.823
1.105000	791.45437	1.0046	0.0000	11.4803	477.7789	53.489
1.110000	793.33292	1.0077	0.0000	11.5965	483.6772	54.161
1.115000	795.19147	1.0108	0.0000	11.7143	489.6105	54.839
1.120000	797.03002	1.0139	0.0000	11.8337	495.5788	55.522
1.125000	798.84857	1.0170	0.0000	11.9547	501.5821	56.210
1.130000	800.64712	1.0201	0.0000	12.0773	507.6204	56.903
1.135000	802.42567	1.0232	0.0000	12.2015	513.6937	57.602
1.140000	804.18422	1.0263	0.0000	12.3273	519.8020	58.307
1.145000	805.92277	1.0294	0.0000	12.4547	525.9453	59.018
1.150000	807.64132	1.0325	0.0000	12.5837	532.1236	59.735
1.155000	809.33987	1.0356	0.0000	12.7143	538.3369	60.458
1.160000	811.01842	1.0387	0.0000	12.8465	544.5852	61.187
1.165000	812.67697	1.0418	0.0000	12.9803	550.8685	61.922
1.170000	814.31552	1.0449	0.0000	13.1157	557.1868	62.663
1.175000	815.93407	1.0480	0.0000	13.2527	563.5401	63.410
1.180000	817.53262	1.0511	0.0000	13.3913	569.9284	64.163
1.185000	819.11117	1.0542	0.0000	13.5315	576.3517	64.922
1.190000	820.66972	1.0573	0.0000	13.6733	582.8100	65.687
1.195000	822.20827	1.0604	0.0000	13.8167	589.3033	66.458
1.200000	823.72682	1.0635	0.0000	13.9617	595.8316	67.235
1.205000	825.22537	1.0666	0.0000	14.1083	602.3949	68.018
1.210000	826.70392	1.0697	0.0000	14.2565	608.9932	68.807
1.215000	828.16247	1.0728	0.0000	14.4063	615.6265	69.602
1.220000	829.60102	1.0759	0.0000	14.5577	622.2948	70.403
1.225000	831.01957	1.0790	0.0000	14.7107	628.9981	71.210
1.230000	832.41812	1.0821	0.0000	14.8653	635.7364	72.023
1.235000	833.79667	1.0852	0.0000	15.0215	642.5097	72.842
1.240000	835.15522	1.0883	0.0000	15.1793	649.3180	73.667
1.245000	836.49377	1.0914	0.0000	15.3387	656.1613	74.500
1.250000	837.81232	1.0945	0.0000	15.4997	663.0396	75.341
1.255000	839.11087	1.0976	0.0000	15.6623	669.9529	76.189
1.260000	840.38942	1.1007	0.0000	15.8265	676.9012	77.044
1.265000	841.64797	1.1038				

0,57400	422,17500	0,4711	25771,7314	1,2564	51,4444	6,451
0,58000	410,56214	0,4802	24670,7772	1,1941	51,4004	6,449
0,58500	410,51121	0,4893	24167,6616	1,1312	51,3575	6,448
0,59000	404,51654	0,4984	23664,1267	1,0681	51,3146	6,447
0,59500	404,51120	0,5075	23161,0272	1,0051	51,2717	6,446
0,60000	401,51044	0,5166	22657,9674	0,9421	51,2288	6,445
0,60500	400,51054	0,5257	22154,9482	0,8791	51,1859	6,444
0,61000	400,51124	0,5348	21651,9692	0,8161	51,1430	6,443
0,61500	400,51124	0,5439	21148,9704	0,7531	51,0999	6,442
0,62000	400,51004	0,5530	20645,9716	0,6901	51,0569	6,441
0,62500	400,51004	0,5621	20142,9728	0,6271	51,0139	6,440
0,63000	400,51004	0,5712	19639,9740	0,5641	50,9709	6,439
0,63500	400,51004	0,5803	19136,9752	0,5011	50,9279	6,438
0,64000	400,51004	0,5894	18633,9764	0,4381	50,8849	6,437
0,64500	400,51004	0,5985	18130,9776	0,3751	50,8419	6,436
0,65000	400,51004	0,6076	17627,9788	0,3121	50,7989	6,435
0,65500	400,51004	0,6167	17124,9800	0,2491	50,7559	6,434
0,66000	400,51004	0,6258	16621,9812	0,1861	50,7129	6,433
0,66500	400,51004	0,6349	16118,9824	0,1231	50,6699	6,432
0,67000	400,51004	0,6440	15615,9836	0,0601	50,6269	6,431
0,67500	400,51004	0,6531	15112,9848	0,0000	50,5839	6,430
0,68000	400,51004	0,6622	14609,9860	0,0000	50,5409	6,429
0,68500	400,51004	0,6713	14106,9872	0,0000	50,4979	6,428
0,69000	400,51004	0,6804	13603,9884	0,0000	50,4549	6,427
0,69500	400,51004	0,6895	13100,9896	0,0000	50,4119	6,426
0,70000	400,51004	0,6986	12597,9908	0,0000	50,3689	6,425
0,70500	400,51004	0,7077	12094,9920	0,0000	50,3259	6,424
0,71000	400,51004	0,7168	11591,9932	0,0000	50,2829	6,423
0,71500	400,51004	0,7259	11088,9944	0,0000	50,2399	6,422
0,72000	400,51004	0,7350	10585,9956	0,0000	50,1969	6,421
0,72500	400,51004	0,7441	10082,9968	0,0000	50,1539	6,420
0,73000	400,51004	0,7532	9579,9980	0,0000	50,1109	6,419
0,73500	400,51004	0,7623	9076,9992	0,0000	50,0679	6,418
0,74000	400,51004	0,7714	8573,9994	0,0000	50,0249	6,417
0,74500	400,51004	0,7805	8070,9996	0,0000	49,9819	6,416
0,75000	400,51004	0,7896	7567,9998	0,0000	49,9389	6,415
0,75500	400,51004	0,7987	7064,9999	0,0000	49,8959	6,414
0,76000	400,51004	0,8078	6561,9999	0,0000	49,8529	6,413
0,76500	400,51004	0,8169	6058,9999	0,0000	49,8099	6,412
0,77000	400,51004	0,8260	5555,9999	0,0000	49,7669	6,411
0,77500	400,51004	0,8351	5052,9999	0,0000	49,7239	6,410
0,78000	400,51004	0,8442	4549,9999	0,0000	49,6809	6,409
0,78500	400,51004	0,8533	4046,9999	0,0000	49,6379	6,408
0,79000	400,51004	0,8624	3543,9999	0,0000	49,5949	6,407
0,79500	400,51004	0,8715	3040,9999	0,0000	49,5519	6,406
0,80000	400,51004	0,8806	2537,9999	0,0000	49,5089	6,405
0,80500	400,51004	0,8897	2034,9999	0,0000	49,4659	6,404
0,81000	400,51004	0,8988	1531,9999	0,0000	49,4229	6,403
0,81500	400,51004	0,9079	1028,9999	0,0000	49,3799	6,402
0,82000	400,51004	0,9170	525,9999	0,0000	49,3369	6,401
0,82500	400,51004	0,9261	22,9999	0,0000	49,2939	6,400
0,83000	400,51004	0,9352	0,0000	0,0000	49,2509	6,399
0,83500	400,51004	0,9443	0,0000	0,0000	49,2079	6,398
0,84000	400,51004	0,9534	0,0000	0,0000	49,1649	6,397
0,84500	400,51004	0,9625	0,0000	0,0000	49,1219	6,396
0,85000	400,51004	0,9716	0,0000	0,0000	49,0789	6,395
0,85500	400,51004	0,9807	0,0000	0,0000	49,0359	6,394
0,86000	400,51004	0,9898	0,0000	0,0000	48,9929	6,393
0,86500	400,51004	0,9989	0,0000	0,0000	48,9499	6,392
0,87000	400,51004	1,0080	0,0000	0,0000	48,9069	6,391
0,87500	400,51004	1,0171	0,0000	0,0000	48,8639	6,390
0,88000	400,51004	1,0262	0,0000	0,0000	48,8209	6,389
0,88500	400,51004	1,0353	0,0000	0,0000	48,7779	6,388
0,89000	400,51004	1,0444	0,0000	0,0000	48,7349	6,387
0,89500	400,51004	1,0535	0,0000	0,0000	48,6919	6,386
0,90000	400,51004	1,0626	0,0000	0,0000	48,6489	6,385
0,90500	400,51004	1,0717	0,0000	0,0000	48,6059	6,384
0,91000	400,51004	1,0808	0,0000	0,0000	48,5629	6,383
0,91500	400,51004	1,0899	0,0000	0,0000	48,5199	6,382
0,92000	400,51004	1,0990	0,0000	0,0000	48,4769	6,381
0,92500	400,51004	1,1081	0,0000	0,0000	48,4339	6,380
0,93000	400,51004	1,1172	0,0000	0,0000	48,3909	6,379
0,93500	400,51004	1,1263	0,0000	0,0000	48,3479	6,378
0,94000	400,51004	1,1354	0,0000	0,0000	48,3049	6,377
0,94500	400,51004	1,1445	0,0000	0,0000	48,2619	6,376
0,95000	400,51004	1,1536	0,0000	0,0000	48,2189	6,375
0,95500	400,51004	1,1627	0,0000	0,0000	48,1759	6,374
0,96000	400,51004	1,1718	0,0000	0,0000	48,1329	6,373
0,96500	400,51004	1,1809	0,0000	0,0000	48,0899	6,372
0,97000	400,51004	1,1900	0,0000	0,0000	48,0469	6,371
0,97500	400,51004	1,1991	0,0000	0,0000	47,9999	6,370
0,98000	400,51004	1,2082	0,0000	0,0000	47,9569	6,369
0,98500	400,51004	1,2173	0,0000	0,0000	47,9139	6,368
0,99000	400,51004	1,2264	0,0000	0,0000	47,8709	6,367
0,99500	400,51004	1,2355	0,0000	0,0000	47,8279	6,366
1,00000	400,51004	1,2446	0,0000	0,0000	47,7849	6,365

0,95000	407,54324	0,7655	0,0000	0,4499	249,4444	31,551
0,95500	401,54274	0,7746	0,0000	0,4389	249,4004	31,549
0,96000	400,54224	0,7837	0,0000	0,4279	249,3564	31,548
0,96500	400,54174	0,7928	0,0000	0,4169	249,3124	31,547
0,97000	400,54124	0,8019	0,0000	0,4059	249,2684	31,546
0,97500	400,54074	0,8110	0,0000	0,3949	249,2244	31,545
0,98000	400,54024	0,8201	0,0000	0,3839	249,1804	31,544
0,98500	400,53974	0,8292	0,0000	0,3729	249,1364	31,543
0,99000	400,53924	0,8383	0,0000	0,3619	249,0924	31,542
0,99500	400,53874	0,8474	0,0000	0,3509	249,0484	31,541
1,00000	400,53824	0,8565	0,0000	0,3399	249,0044	31,540
1,00500	400,53774	0,8656	0,0000	0,3289	248,9604	31,539
1,01000	400,53724	0,8747	0,0000	0,3179	248,9164	31,538
1,01500	400,53674	0,8838	0,0000	0,3069	248,8724	31,537
1,02000	400,53624	0,8929	0,0000	0,2959	248,8284	31,536
1,02500	400,53574	0,9020	0,0000	0,2849	248,7844	31,535
1,03000	400,53524	0,9111	0,0000	0,2739	248,7404	31,534
1,03500	400,53474	0,9202	0,0000	0,2629	248,6964	31,533
1,04000	400,53424	0,9293	0,0000	0,2519	248,6524	31,532
1,04500	400,53374	0,9384	0,0000	0,2409	248,6084	31,531
1,05000	400,53324	0,9475	0,0000	0,2299	248,5644	31,530
1,05500	400,53274	0,9566	0,0000	0,2189	248,5204	31,529
1,06000	400,53224	0,9657	0,0000	0,2079	248,4764	31,528
1,06500	400,53174	0,9748	0,0000	0,1969	248,4324	31,527
1,07000	400,53124	0,9839	0,0000	0,1859	248,3884	31,526
1,07500	400,53074	0,9930	0,0000	0,1749	248,3444	31,525
1,08000	400,53024	1,0021	0,0000	0,1639	248,3004	31,524
1,08500	400,52974	1,0112	0,0000	0,1529	248,2564	31,523
1,09000	400,52924	1,0203	0,0000	0,1419	248,2124	31,522
1,09500	400,52874	1,0294	0,0000	0,1309	248,1684	31,521
1,10000	400,52824	1,0385	0,0000	0,1199	248,1244	31,520
1,10500	400,52774	1,0476	0,0000	0,1089	248,0804	31,519
1,11000	400,52724	1,0567	0,0000	0,0979	248,0364	31,518
1,11500	400,52674	1,0658	0,0000	0,0869	247,9924	31,517
1,12000	400,52624	1,0749	0,0000	0,0759	247,9484	31,516
1,12500	400,52574	1,0840	0,0000	0,0649	247,9044	31,515
1,13000	400,52524	1,0931	0,0000	0,0539	247,8604	31,514
1,13500	400,52474	1,1022	0,0000	0,0429	247,8164	31,513
1,14000	400,52424	1,1113	0,0000	0,0319	247,7724	31,512
1,14500	400,52374	1,1204	0,0000	0,0209	247,7284	31,511
1,15000	400,52324	1,1295	0,0000	0,0099	247,6844	31,510
1,15500	400,52274	1,1386	0,0000	0,0000	247,6404	31,509
1,16000	400,52224	1,1477	0,0000	0,0000	247,5964	31,508
1,16500	400,52174	1,1568	0,0000	0,0000	247,5524	31,507
1,17000	400,52124	1,1659	0,0000	0,0000	247,5084	31,506
1,17500	400,52074	1,1750	0,0000	0,0000	247,4644	31,505
1,18000	400,52024	1,1841	0,0000	0,0000	247,4204	31,504
1,18500	400,51974	1,1932	0,0000	0,0000	247,3764	31,503
1,19000	400,51924	1,2023	0,0000	0,0000	247,3324	31,502
1,19500	400,51874	1,2114	0,0000	0,0000	247,2884	31,501
1,20000	400,51824	1,2205	0,0000	0,0000	247,2444	31,500
1,20500	400,51774	1,2296	0,0000	0,0000	247,2004	31,499
1,21000	400,51724	1,2387	0,0000	0,0000	247,1564	31,498
1,21500	400,51674	1,2478	0,0000	0,0000	247,1124	31,497
1,22000	400,51624	1,2569	0,0000	0,0000	247,0684	31,496
1,22500	400,51574	1,2660	0,0000</			

1.50000	1.50000	0.5129	0.5000	1.0000	500.5114	05.550
1.60000	1.60000	0.5130	0.5000	1.0000	500.5117	05.561
1.70000	1.70000	0.5131	0.5000	1.0000	500.5120	05.572
1.80000	1.80000	0.5132	0.5000	1.0000	500.5123	05.583
1.90000	1.90000	0.5133	0.5000	1.0000	500.5126	05.594
2.00000	2.00000	0.5134	0.5000	1.0000	500.5129	05.605
2.10000	2.10000	0.5135	0.5000	1.0000	500.5132	05.616
2.20000	2.20000	0.5136	0.5000	1.0000	500.5135	05.627
2.30000	2.30000	0.5137	0.5000	1.0000	500.5138	05.638
2.40000	2.40000	0.5138	0.5000	1.0000	500.5141	05.649
2.50000	2.50000	0.5139	0.5000	1.0000	500.5144	05.660
2.60000	2.60000	0.5140	0.5000	1.0000	500.5147	05.671
2.70000	2.70000	0.5141	0.5000	1.0000	500.5150	05.682
2.80000	2.80000	0.5142	0.5000	1.0000	500.5153	05.693
2.90000	2.90000	0.5143	0.5000	1.0000	500.5156	05.704
3.00000	3.00000	0.5144	0.5000	1.0000	500.5159	05.715
3.10000	3.10000	0.5145	0.5000	1.0000	500.5162	05.726
3.20000	3.20000	0.5146	0.5000	1.0000	500.5165	05.737
3.30000	3.30000	0.5147	0.5000	1.0000	500.5168	05.748
3.40000	3.40000	0.5148	0.5000	1.0000	500.5171	05.759
3.50000	3.50000	0.5149	0.5000	1.0000	500.5174	05.770
3.60000	3.60000	0.5150	0.5000	1.0000	500.5177	05.781
3.70000	3.70000	0.5151	0.5000	1.0000	500.5180	05.792
3.80000	3.80000	0.5152	0.5000	1.0000	500.5183	05.803
3.90000	3.90000	0.5153	0.5000	1.0000	500.5186	05.814
4.00000	4.00000	0.5154	0.5000	1.0000	500.5189	05.825
4.10000	4.10000	0.5155	0.5000	1.0000	500.5192	05.836
4.20000	4.20000	0.5156	0.5000	1.0000	500.5195	05.847
4.30000	4.30000	0.5157	0.5000	1.0000	500.5198	05.858
4.40000	4.40000	0.5158	0.5000	1.0000	500.5201	05.869
4.50000	4.50000	0.5159	0.5000	1.0000	500.5204	05.880
4.60000	4.60000	0.5160	0.5000	1.0000	500.5207	05.891
4.70000	4.70000	0.5161	0.5000	1.0000	500.5210	05.902
4.80000	4.80000	0.5162	0.5000	1.0000	500.5213	05.913
4.90000	4.90000	0.5163	0.5000	1.0000	500.5216	05.924
5.00000	5.00000	0.5164	0.5000	1.0000	500.5219	05.935
5.10000	5.10000	0.5165	0.5000	1.0000	500.5222	05.946
5.20000	5.20000	0.5166	0.5000	1.0000	500.5225	05.957
5.30000	5.30000	0.5167	0.5000	1.0000	500.5228	05.968
5.40000	5.40000	0.5168	0.5000	1.0000	500.5231	05.979
5.50000	5.50000	0.5169	0.5000	1.0000	500.5234	05.990
5.60000	5.60000	0.5170	0.5000	1.0000	500.5237	06.001
5.70000	5.70000	0.5171	0.5000	1.0000	500.5240	06.012
5.80000	5.80000	0.5172	0.5000	1.0000	500.5243	06.023
5.90000	5.90000	0.5173	0.5000	1.0000	500.5246	06.034
6.00000	6.00000	0.5174	0.5000	1.0000	500.5249	06.045
6.10000	6.10000	0.5175	0.5000	1.0000	500.5252	06.056
6.20000	6.20000	0.5176	0.5000	1.0000	500.5255	06.067
6.30000	6.30000	0.5177	0.5000	1.0000	500.5258	06.078
6.40000	6.40000	0.5178	0.5000	1.0000	500.5261	06.089
6.50000	6.50000	0.5179	0.5000	1.0000	500.5264	06.100
6.60000	6.60000	0.5180	0.5000	1.0000	500.5267	06.111
6.70000	6.70000	0.5181	0.5000	1.0000	500.5270	06.122
6.80000	6.80000	0.5182	0.5000	1.0000	500.5273	06.133
6.90000	6.90000	0.5183	0.5000	1.0000	500.5276	06.144
7.00000	7.00000	0.5184	0.5000	1.0000	500.5279	06.155

7.00000	7.00000	0.0041	0.0000	1.0000	700.7300	00.101
7.10000	7.10000	0.0042	0.0000	1.0000	700.7303	00.112
7.20000	7.20000	0.0043	0.0000	1.0000	700.7306	00.123
7.30000	7.30000	0.0044	0.0000	1.0000	700.7309	00.134
7.40000	7.40000	0.0045	0.0000	1.0000	700.7312	00.145
7.50000	7.50000	0.0046	0.0000	1.0000	700.7315	00.156
7.60000	7.60000	0.0047	0.0000	1.0000	700.7318	00.167
7.70000	7.70000	0.0048	0.0000	1.0000	700.7321	00.178
7.80000	7.80000	0.0049	0.0000	1.0000	700.7324	00.189
7.90000	7.90000	0.0050	0.0000	1.0000	700.7327	00.200
8.00000	8.00000	0.0051	0.0000	1.0000	700.7330	00.211
8.10000	8.10000	0.0052	0.0000	1.0000	700.7333	00.222
8.20000	8.20000	0.0053	0.0000	1.0000	700.7336	00.233
8.30000	8.30000	0.0054	0.0000	1.0000	700.7339	00.244
8.40000	8.40000	0.0055	0.0000	1.0000	700.7342	00.255
8.50000	8.50000	0.0056	0.0000	1.0000	700.7345	00.266
8.60000	8.60000	0.0057	0.0000	1.0000	700.7348	00.277
8.70000	8.70000	0.0058	0.0000	1.0000	700.7351	00.288
8.80000	8.80000	0.0059	0.0000	1.0000	700.7354	00.299
8.90000	8.90000	0.0060	0.0000	1.0000	700.7357	00.310
9.00000	9.00000	0.0061	0.0000	1.0000	700.7360	00.321
9.10000	9.10000	0.0062	0.0000	1.0000	700.7363	00.332
9.20000	9.20000	0.0063	0.0000	1.0000	700.7366	00.343
9.30000	9.30000	0.0064	0.0000	1.0000	700.7369	00.354
9.40000	9.40000	0.0065	0.0000	1.0000	700.7372	00.365
9.50000	9.50000	0.0066	0.0000	1.0000	700.7375	00.376
9.60000	9.60000	0.0067	0.0000	1.0000	700.7378	00.387
9.70000	9.70000	0.0068	0.0000	1.0000	700.7381	00.398
9.80000	9.80000	0.0069	0.0000	1.0000	700.7384	00.409
9.90000	9.90000	0.0070	0.0000	1.0000	700.7387	00.420
10.00000	10.00000	0.0071	0.0000	1.0000	700.7390	00.431
10.10000	10.10000	0.0072	0.0000	1.0000	700.7393	00.442
10.20000	10.20000	0.0073	0.0000	1.0000	700.7396	00.453
10.30000	10.30000	0.0074	0.0000	1.0000	700.7399	00.464
10.40000	10.40000	0.0075	0.0000	1.0000	700.7402	00.475
10.50000	10.50000	0.0076	0.0000	1.0000	700.7405	00.486
10.60000	10.60000	0.0077	0.0000	1.0000	700.7408	00.497
10.70000	10.70000	0.0078	0.0000	1.0000	700.7411	00.508
10.80000	10.80000	0.0079	0.0000	1.0000	700.7414	00.519
10.90000	10.90000	0.0080	0.0000	1.0000	700.7417	00.530
11.00000	11.00000	0.0081	0.0000	1.0000	700.7420	00.541
11.10000	11.10000	0.0082	0.0000	1.0000	700.7423	00.552
11.20000	11.20000	0.0083	0.0000	1.0000	700.7426	00.563
11.30000	11.30000	0.0084	0.0000	1.0000	700.7429	00.574
11.40000	11.40000	0.0085	0.0000	1.0000	700.7432	00.585
11.50000	11.50000	0.0086	0.0000	1.0000	700.7435	00.596
11.60000	11.60000	0.0087	0.0000	1.0000	700.7438	00.607
11.70000	11.70000	0.0088	0.0000	1.0000	700.7441	00.618
11.80000	11.80000	0.0089	0.0000	1.0000	700.7444	00.629
11.90000	11.90000	0.0090	0.0000	1.0000	700.7447	00.640
12.00000	12.00000	0.0091	0.0000	1.0000	700.7450	00.651

WAVELENGTH AND TOTAL POWER RADIATED, MEANWHILE DIVIDING BY THE VISIBILITY FACTOR.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1224.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES F = 1500.6

DEGREES FAHRENHEIT = 5807.2

THE POWER RADIATED FROM THE SURFACE WITHIN IS 1.0000 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 2.0000 WATT/CM<sup>2</sup>.

THE LUMINANCE COLUMN DENSITY OF THE SURFACE IS 1.0000 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.1010.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 2.0000 WATT/CM<sup>2</sup>.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.1010 WATT/CM<sup>2</sup>.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.4950 MICRONS.

THE WAVELENGTH FROM WHICH THE FLUX DENSITY IS 1.0000 WATT/CM<sup>2</sup> IS 0.4950 MICRONS. THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE IS 0.1010.

THE TOTAL POWER RADIATED IS 1.0000 WATT/CM<sup>2</sup> = 1.0000000000000000 WATT/CM<sup>2</sup> = 1.0000000000000000 WATT/CM<sup>2</sup>.

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 0.4950 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS COLUMN DENSITY IS THE PRODUCT OF LUMENS PER WATT PER UNIT EMITTANCE X VISIBILITY FACTOR. WHEN THE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE TEMPERATURE COEFFICIENT IN THE FOLLOWING FORMULA:  $W = \frac{1}{T} \frac{dT}{T}$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1224.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES F = 1500.6

DEGREES FAHRENHEIT = 5807.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE COEFFICIENT FOR WATT/CM <sup>2</sup>	POWER FLUX ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	54.54017	0.0017	0.0000	11.7410	2.1943	0.254
0.35500	62.19804	0.0020	0.0000	11.5772	2.4911	0.291
0.36000	64.11047	0.0021	0.0000	11.4164	2.8114	0.331
0.36500	74.13547	0.0109	0.0000	11.2546	3.1748	0.373
0.37000	87.46090	0.0164	0.0000	11.1004	3.5624	0.419
0.37500	97.46209	0.0207	0.0000	10.9542	3.9839	0.468
0.38000	94.79441	0.0140	0.0000	10.8147	4.4400	0.529
0.38500	102.18444	0.0151	0.0000	10.6754	4.9123	0.580
0.39000	102.48567	0.0162	0.0000	10.5407	5.4023	0.642
0.39500	117.78667	0.0182	0.0000	10.4056	6.0113	0.709
0.40000	125.47051	0.0186	10.2440	10.2754	6.6404	0.781
0.40500	134.18414	0.0187	73.1115	10.1354	7.2914	0.857
0.41000	141.5145	0.0215	114.7300	10.0044	7.9450	0.930
0.41500	151.22379	0.0247	227.2740	9.8743	8.7223	1.025
0.42000	161.10000	0.0281	417.0200	9.7463	9.5045	1.117
0.42500	170.26644	0.0251	845.2011	9.6212	10.1324	1.214
0.43000	172.70643	0.0265	1417.4478	9.5044	11.2075	1.317
0.43500	149.31415	0.0200	2142.7272	9.4400	12.1300	1.424
0.44000	129.04493	0.0204	1111.4048	9.3417	13.1000	1.540
0.44500	208.45252	0.0300	4120.9438	9.2449	14.1200	1.660
0.45000	214.95444	0.0323	5457.8345	9.1443	15.1900	1.785
0.45500	220.04394	0.0337	7476.6443	9.0440	16.3100	1.917
0.46000	219.24044	0.0334	9741.8247	8.9460	17.4414	2.055
0.46500	249.53130	0.0390	12554.4152	8.8400	18.7034	2.198
0.47000	259.86209	0.0443	18040.2559	8.7461	19.9744	2.344
0.47500	270.23444	0.0496	20541.1091	8.6541	21.3021	2.504
0.48000	280.44673	0.0450	26524.7292	8.5641	22.6793	2.666
0.48500	291.07244	0.0404	33450.0527	8.4760	24.1046	2.834
0.49000	301.90351	0.0449	42644.6548	8.3897	25.5700	3.004
0.49500	311.92561	0.0413	54724.2295	8.3051	27.0736	3.184
0.50000	322.12661	0.0467	70795.7701	8.2222	28.7002	3.374
0.50500	332.49344	0.0420	92076.2942	8.1410	30.3444	3.567
0.51000	343.01537	0.0473	117324.9741	8.0614	32.0341	3.765
0.51500	353.78007	0.0524	146040.1134	7.9833	33.7749	3.970
0.52000	363.47471	0.0575	175446.5574	7.9064	35.5644	4.181
0.52500	373.54473	0.0525	201457.2203	7.8317	37.4115	4.397
0.53000	383.42194	0.0473	224465.5318	7.7580	39.3046	4.620
0.53500	393.55482	0.0520	244469.8110	7.6854	41.2474	4.844
0.54000	403.37404	0.0564	261679.4303	7.6149	43.2399	5.082
0.54500	413.44504	0.0610	275279.8448	7.5453	45.2811	5.322
0.55000	422.66755	0.0650	285974.8634	7.4770	47.3706	5.564
0.55500	432.11740	0.0690	293440.1014	7.4099	49.5076	5.819
0.56000	441.42854	0.0728	298670.5517	7.3441	51.6915	6.074
0.56500	450.59299	0.0763	299948.7622	7.2794	53.9216	6.330
0.57000	459.60440	0.0797	297529.7605	7.2150	56.1972	6.605

0.97900	668,45809	0.9978	291874,8299	7.1534	98,5174	6.478
0.98000	677,18745	0.7058	282280,4305	6.7021	60,8815	7.154
0.98100	685,44787	0.7182	269817,6405	7.0110	61,2844	7.439
0.98200	694,01470	0.7304	256299,0511	6.9727	65,7179	7.727
0.98300	702,18404	0.7424	241713,1451	6.9149	68,2244	8.019
0.98400	710,17194	0.7545	216804,5747	6.8573	70,7504	8.317
0.98500	717,97508	0.7660	199710,4715	6.8010	72,3298	8.619
0.98600	725,59059	0.7773	179772,9801	6.7457	75,0388	8.925
0.98700	733,01565	0.7882	159940,7327	6.6913	78,5844	9.237
0.98800	740,24873	0.7989	139947,5124	6.6378	81,2687	9.559
0.98900	747,28437	0.8093	119841,6880	6.5852	84,0874	9.873
0.99000	754,12849	0.8195	99653,9531	6.5334	86,7612	10.195
0.99100	760,77337	0.8293	79747,7116	6.4824	89,5295	10.523
0.99200	767,21993	0.8388	60489,1717	6.4323	92,3486	10.854
0.99300	773,46743	0.8481	41814,2024	6.3830	95,2004	11.189
0.99400	779,51404	0.8570	23145,5473	6.3346	98,0839	11.528
0.99500	785,34504	0.8654	12241,8042	6.2868	100,9952	11.871
0.99600	791,01471	0.8740	28515,2910	6.2394	103,9342	12.214
0.99700	796,44544	0.8821	12521,8434	6.1933	106,9000	12.565
0.99800	801,71784	0.8898	11083,3407	6.1477	109,9004	12.917
0.99900	806,77244	0.8973	9449,9247	6.1027	112,9219	13.272
0.99950	811,43091	0.9045	7070,6431	6.0585	115,9600	13.630
0.99970	816,29334	0.9114	4947,0440	6.0148	119,0174	13.991
0.99980	820,74259	0.9180	3441,3714	5.9720	122,1104	14.355
0.99990	825,03877	0.9244	2422,6503	5.9297	125,2451	14.721
0.99995	829,12416	0.9304	1753,9662	5.8880	128,4166	15.089
0.99998	833,02052	0.9361	1244,3145	5.8470	131,6211	15.467
0.99999	836,72974	0.9417	909,2901	5.8065	134,8595	15.843
0.99999	840,25404	0.9464	653,0581	5.7664	137,9010	16.208
0.99999	843,59547	0.9514	441,4094	5.7271	141,1137	16.584
0.99999	846,75617	0.9564	307,8540	5.6884	144,3567	16.965
0.99999	849,71913	0.9604	220,9113	5.6504	147,5800	17.344
0.99999	852,54422	0.9650	177,4924	5.6128	150,8458	17.729
0.99999	855,18420	0.9694	133,4944	5.5754	154,1052	18.113
0.99999	857,44371	0.9745	88,4395	5.5380	157,3873	18.499
0.99999	859,41944	0.9790	44,8749	5.5029	160,6813	18.884
0.99999	861,03841	0.9820	0.0000	5.4672	163,3017	19.464
0.99999	862,50030	0.9871	0.0000	5.4322	167,9400	20.444
0.99999	863,14771	0.9913	0.0000	5.3985	180,6497	21.233
0.99999	864,80441	0.9947	0.0000	5.3713	187,3449	22.022
0.99999	866,29454	0.9972	0.0000	5.3474	194,0999	22.814
0.99999	867,44199	0.9980	0.0000	5.3164	200,4490	23.607
0.99999	868,07077	0.9994	0.0000	5.2854	207,6070	24.401
0.99999	868,29444	1.0000	0.0000	5.2571	214,3444	25.194
0.99999	868,86741	0.9995	0.0000	5.2294	221,1295	25.989
0.99999	869,04342	0.9984	0.0000	5.2044	227,8844	26.784
0.99999	869,18745	0.9945	0.0000	5.1814	234,6294	27.577
0.99999	869,24337	0.9942	0.0000	5.1544	241,3604	28.364
0.99999	869,27214	0.9912	0.0000	5.1244	248,0737	29.157
0.99999	869,29304	0.9877	0.0000	5.0944	254,7650	29.944
0.99999	869,21642	0.9818	0.0000	5.0644	261,4311	30.737
0.99999	869,23274	0.9793	0.0000	5.0344	268,0647	31.507
0.99999	869,03177	0.9744	0.0000	5.0103	274,6747	32.284
0.99999	869,15244	0.9691	0.0000	4.9837	281,2444	33.054
0.99999	869,15152	0.9615	0.0000	4.9542	287,7809	33.824

0.99999	867,43244	0.9574	0.0000	4.9441	294,2746	34.588
0.99999	867,12442	0.9511	0.0000	4.9141	300,7244	35.344
0.99999	866,81192	0.9444	0.0000	4.8822	307,1177	36.099
0.99999	866,50449	0.9374	0.0000	4.8521	313,5004	36.847
0.99999	866,21937	0.9302	0.0000	4.8219	319,8152	37.590
0.99999	865,97074	0.9227	0.0000	4.7914	326,0802	38.324
0.99999	865,72771	0.9151	0.0000	4.7601	332,2941	39.056
0.99999	865,47825	0.9072	0.0000	4.7284	338,4452	39.780
0.99999	865,23991	0.8991	0.0000	4.6954	344,5624	40.494
0.99999	865,10971	0.8909	0.0000	4.6624	350,6165	41.210
0.99999	864,97349	0.8825	0.0000	4.6294	356,6103	41.914
0.99999	864,87819	0.8739	0.0000	4.5961	362,5449	42.612
0.99999	864,73412	0.8653	0.0000	4.5624	368,4294	43.303
0.99999	864,52441	0.8564	0.0000	4.5281	374,2515	43.988
0.99999	864,24741	0.8477	0.0000	4.4934	380,0140	44.664
0.99999	863,91550	0.8384	0.0000	4.4574	385,7165	45.335
0.99999	863,51914	0.8290	0.0000	4.4214	391,3445	45.994
0.99999	863,04724	0.8194	0.0000	4.3854	396,9397	46.654
0.99999	862,51457	0.8114	0.0000	4.3494	402,4598	47.303
0.99999	862,24414	0.8027	0.0000	4.3124	407,9144	47.944
0.99999	861,91455	0.7934	0.0000	4.2754	413,3154	48.579
0.99999	861,53942	0.7844	0.0000	4.2384	418,6507	49.208
0.99999	861,24517	0.7753	0.0000	4.2014	423,9242	49.824
0.99999	860,94107	0.7661	0.0000	4.1634	429,1359	50.439
0.99999	860,61904	0.7570	0.0000	4.1254	434,2854	51.044
0.99999	860,27910	0.7479	0.0000	4.0882	439,3741	51.642
0.99999	859,90644	0.7384	0.0000	4.0514	444,4009	52.231
0.99999	859,44313	0.7294	0.0000	4.0144	449,3643	52.816
0.99999	858,98373	0.7204	0.0000	3.9774	454,2706	53.393
0.99999	858,53114	0.7114	0.0000	3.9404	459,1181	53.967
0.99999	858,07707	0.7024	0.0000	3.9034	463,9070	54.524
0.99999	857,63174	0.6940	0.0000	3.8664	468,6394	55.079
0.99999	857,19317	0.6853	0.0000	3.8294	473,3244	55.627
0.99999	856,76237	0.6764	0.0000	3.7924	477,9854	56.164
0.99999	856,347302	0.6674	0.0000	3.7554	482,6298	56.702
0.99999	855,93747	0.6580	0.0000	3.7184	487,2612	57.230
0.99999	855,52830	0.6494	0.0000	3.6814	491,8825	57.750
0.99999	855,12475	0.6419	0.0000	3.6444	496,4919	58.264
0.99999	854,72771	0.6335	0.0000	3.6074	500,0942	58.770
0.99999	854,32771	0.6251	0.0000	3.5704	504,6896	59.271
0.99999	853,92514	0.6169	0.0000	3.5334	509,2744	59.764
0.99999	853,52024	0.6087	0.0000	3.4964	513,8473	60.251
0.99999	853,11404	0.6004	0.0000	3.4594	518,4064	60.732
0.99999	852,70544	0.5925	0.0000	3.4224	522,9434	61.204
0.99999	852,29514	0.5845	0.0000	3.3854	527,4594	61.673
0.99999	851,88317	0.5767	0.0000	3.3484	531,9544	62.135
0.99999	851,46947	0.5689	0.0000	3.3114	536,4294	62.590
0.99999	851,05417	0.5612	0.0000	3.2744	540,8844	63.039
0.99999	850,63717	0.5534	0.0000	3.2374	545,3194	63.482
0.99999	850,21917	0.5461	0.0000	3.2004	549,7344	63.919
0.99999	849,80014	0.5384	0.0000	3.1634	554,1294	64.350
0.99999	849,37914	0.5313	0.0000	3.1264	558,5044	64.774
0.99999	848,95614	0.5240	0.0000	3.0894	562,8694	65.195
0.99999	848,53114	0.5169	0.0000	3.0524	567,2244	65.609
0.99999	848,10414	0.5098	0.0000	3.0154	571,5694	66.017

[illegible]

VISIBILITY AND OTHER DATA FROM PLACER MOUNTAIN, MICHAEL'S DIVISION, U.S.G.S., UNIVERSITY OF DENVER,

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 1274.6 DEGREES CELSIUS. FOR THE FOLLOWING TABLE, DEGREES K = 3550.0  
DEGREES F = 6435.0

THE POWER RADIATED FROM 0.30 TO 0.75 MICRONS IS 160.75 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 35193.73 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (CD/PI) OF TOTAL VISIBLE FIELD IS 11198.15 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.189 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 207.21 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.041 IN 1964/65

THE WAVELENGTH OF PRA POWER IS 0.9103 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.289 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECIFIC MAGNETIC INTERFERENCE TO TOTAL MAGNETIC INTERFERENCE.

THE TOTAL PULSE RADIATED IS 400.48 RADI/CMO2 IN 0.00000094 IN/SEC/CMO2 OR 2.54E+001 RADI/SEC/CMO2

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 125.92 mW/cm<sup>2</sup> OF A 100 μm DIA.

THE SPECTRAL BRIGHTNESS (COLUMN 8) IS THE PRODUCT: WATTS PER METER <sup>2</sup> PER HERTZ <sup>-1</sup> X RADIANT EFFITANCE X VISIBILITY FACTOR, WHERE RADIANT EFFITANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER HERTZ.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE ( $\epsilon$ ) MAY BE CALCULATED USING THE TEMPERATURE EXPONENT  $n$  IN THE FOLLOWING FORMULA:  $\epsilon = \epsilon_0 (1 + n \Delta T)$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 2726.4 DEGREES CELSIUS FOR THE FOLLOWING FAMILY. DEGREE K = 3950.0  
DEGREE FANNEMMEY = 5930.7

WAVELENGTH MICRONS	SPHERICAL POWER WATTS/CN/2 MICRON	POWER NUMBER TO PEAK	SPECTRAL LUMENS PER CM <sup>2</sup> PER MICRON	OPERATION EXPERIMENT FOR ACTION	POWER FROM ZERO TO 1	% TOTAL POWER ZERO TO 1
0.35000	54.76720	0.0920	0.0000	11.5776	2.4344	0.293
0.35500	73.21177	0.1009	0.0000	11.4143	2.9887	0.332
0.36000	79.20407	0.1100	0.0000	11.2500	3.3711	0.374
0.36500	87.11123	0.1200	0.0000	11.1014	3.7887	0.421
0.37000	94.55500	0.1303	0.0000	10.9518	4.2827	0.471
0.37500	102.31870	0.1410	0.0000	10.8039	4.7384	0.526
0.38000	110.30123	0.1521	0.0000	10.6637	5.2684	0.589
0.38500	118.76474	0.1634	0.0000	10.5251	5.8392	0.644
0.39000	127.41824	0.1755	0.0000	10.3904	6.4586	0.717
0.39500	136.17783	0.1879	0.0000	10.2590	7.1147	0.780
0.40000	145.54667	0.2006	10.5294	10.1307	7.8149	0.868
0.40500	155.06717	0.2134	88.3467	10.0057	8.5703	0.952
0.41000	164.70513	0.2269	134.4320	9.8837	9.3697	1.041
0.41500	174.44574	0.2404	261.2999	9.7687	10.2182	1.134
0.42000	184.79330	0.2544	502.4387	9.6485	11.1147	1.235
0.42500	195.11577	0.2688	940.5418	9.5351	12.0664	1.340
0.43000	205.40811	0.2832	1471.8394	9.4241	13.0682	1.451
0.43500	216.26281	0.2979	2470.5864	9.3160	14.1298	1.564
0.44000	227.06024	0.3124	3551.2278	9.2101	15.2510	1.691
0.44500	237.90425	0.3274	4693.0494	9.1069	16.3936	1.821
0.45000	249.01824	0.3430	6434.6313	9.0054	17.6111	1.956
0.45500	260.14545	0.3584	8491.1066	8.9069	18.8839	2.097
0.46000	271.35079	0.3734	11071.1123	8.8101	20.2127	2.245
0.46500	282.61494	0.3891	14721.2857	8.7157	21.5974	2.394
0.47000	293.92884	0.4044	18184.2941	8.6231	23.0349	2.559
0.47500	305.26974	0.4205	23249.3447	8.5324	24.5349	2.725
0.48000	316.62553	0.4362	29927.4454	8.4437	26.0916	2.898
0.48500	327.98000	0.4518	37491.5653	8.3568	27.7032	3.076
0.49000	339.32134	0.4674	47093.6127	8.2717	29.3714	3.267
0.49500	350.64327	0.4830	61515.0215	8.1884	31.0983	3.453
0.50000	361.90144	0.4985	79484.0800	8.1067	32.8777	3.651
0.50500	373.11474	0.5140	103263.2349	8.0264	34.7152	3.859
0.51000	384.25944	0.5293	131432.0841	7.9481	36.6087	4.065
0.51500	395.32350	0.5444	163442.5460	7.8713	38.5477	4.289
0.52000	406.25542	0.5597	199150.4265	7.7957	40.5416	4.504
0.52500	417.16807	0.5747	249951.5530	7.7217	42.6705	4.733
0.53000	427.10891	0.5894	290028.9492	7.6492	44.9332	4.968
0.53500	437.04994	0.6041	328865.7699	7.5779	48.0499	5.208
0.54000	447.01764	0.6186	370028.2113	7.5080	49.1145	5.455
0.54500	456.90373	0.6329	406146.3114	7.4395	51.3897	5.705
0.55000	466.80870	0.6469	317736.6092	7.3721	53.7123	5.967
0.55500	476.45474	0.6608	326145.2354	7.3060	56.0854	6.228
0.56000	486.55554	0.6744	331219.7763	7.2411	58.5085	6.497
0.56500	496.26389	0.6877	332350.4421	7.1774	60.9806	6.779
0.57000	506.77339	0.7000	320350.5445	7.1149	63.5007	7.052

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0.57500	514,11507	0.7137	122171,2194	2.533	76,5660	7.117
0.58000	517,21117	0.7166	111918,4161	2.533	76,5660	7.117
0.58500	518,21174	0.7197	107010,0160	2.533	76,5660	7.117
0.59000	519,21215	0.7230	101911,1161	2.533	76,5660	7.117
0.59500	521,21257	0.7264	96700,4161	2.533	76,5660	7.117
0.60000	523,21300	0.7300	91300,1161	2.533	76,5660	7.117
0.60500	525,21343	0.7336	85700,1161	2.533	76,5660	7.117
0.61000	527,21386	0.7373	80000,1161	2.533	76,5660	7.117
0.61500	529,21429	0.7410	74200,1161	2.533	76,5660	7.117
0.62000	531,21472	0.7447	68300,1161	2.533	76,5660	7.117
0.62500	533,21515	0.7484	62400,1161	2.533	76,5660	7.117
0.63000	535,21558	0.7521	56500,1161	2.533	76,5660	7.117
0.63500	537,21601	0.7558	50600,1161	2.533	76,5660	7.117
0.64000	539,21644	0.7595	44700,1161	2.533	76,5660	7.117
0.64500	541,21687	0.7632	38800,1161	2.533	76,5660	7.117
0.65000	543,21730	0.7669	32900,1161	2.533	76,5660	7.117
0.65500	545,21773	0.7706	27000,1161	2.533	76,5660	7.117
0.66000	547,21816	0.7743	21100,1161	2.533	76,5660	7.117
0.66500	549,21859	0.7780	15200,1161	2.533	76,5660	7.117
0.67000	551,21902	0.7817	9300,1161	2.533	76,5660	7.117
0.67500	553,21945	0.7854	3400,1161	2.533	76,5660	7.117
0.68000	555,21988	0.7891	0,1161	2.533	76,5660	7.117
0.68500	557,22031	0.7928	0,1161	2.533	76,5660	7.117
0.69000	559,22074	0.7965	0,1161	2.533	76,5660	7.117
0.69500	561,22117	0.8002	0,1161	2.533	76,5660	7.117
0.70000	563,22160	0.8039	0,1161	2.533	76,5660	7.117
0.70500	565,22203	0.8076	0,1161	2.533	76,5660	7.117
0.71000	567,22246	0.8113	0,1161	2.533	76,5660	7.117
0.71500	569,22289	0.8150	0,1161	2.533	76,5660	7.117
0.72000	571,22332	0.8187	0,1161	2.533	76,5660	7.117
0.72500	573,22375	0.8224	0,1161	2.533	76,5660	7.117
0.73000	575,22418	0.8261	0,1161	2.533	76,5660	7.117
0.73500	577,22461	0.8298	0,1161	2.533	76,5660	7.117
0.74000	579,22504	0.8335	0,1161	2.533	76,5660	7.117
0.74500	581,22547	0.8372	0,1161	2.533	76,5660	7.117
0.75000	583,22590	0.8409	0,1161	2.533	76,5660	7.117
0.75500	585,22633	0.8446	0,1161	2.533	76,5660	7.117
0.76000	587,22676	0.8483	0,1161	2.533	76,5660	7.117
0.76500	589,22719	0.8520	0,1161	2.533	76,5660	7.117
0.77000	591,22762	0.8557	0,1161	2.533	76,5660	7.117
0.77500	593,22805	0.8594	0,1161	2.533	76,5660	7.117
0.78000	595,22848	0.8631	0,1161	2.533	76,5660	7.117
0.78500	597,22891	0.8668	0,1161	2.533	76,5660	7.117
0.79000	599,22934	0.8705	0,1161	2.533	76,5660	7.117
0.79500	601,22977	0.8742	0,1161	2.533	76,5660	7.117
0.80000	603,23020	0.8779	0,1161	2.533	76,5660	7.117
0.80500	605,23063	0.8816	0,1161	2.533	76,5660	7.117
0.81000	607,23106	0.8853	0,1161	2.533	76,5660	7.117
0.81500	609,23149	0.8890	0,1161	2.533	76,5660	7.117
0.82000	611,23192	0.8927	0,1161	2.533	76,5660	7.117
0.82500	613,23235	0.8964	0,1161	2.533	76,5660	7.117
0.83000	615,23278	0.9001	0,1161	2.533	76,5660	7.117
0.83500	617,23321	0.9038	0,1161	2.533	76,5660	7.117
0.84000	619,23364	0.9075	0,1161	2.533	76,5660	7.117
0.84500	621,23407	0.9112	0,1161	2.533	76,5660	7.117
0.85000	623,23450	0.9149	0,1161	2.533	76,5660	7.117
0.85500	625,23493	0.9186	0,1161	2.533	76,5660	7.117
0.86000	627,23536	0.9223	0,1161	2.533	76,5660	7.117
0.86500	629,23579	0.9260	0,1161	2.533	76,5660	7.117
0.87000	631,23622	0.9297	0,1161	2.533	76,5660	7.117
0.87500	633,23665	0.9334	0,1161	2.533	76,5660	7.117
0.88000	635,23708	0.9371	0,1161	2.533	76,5660	7.117
0.88500	637,23751	0.9408	0,1161	2.533	76,5660	7.117
0.89000	639,23794	0.9445	0,1161	2.533	76,5660	7.117
0.89500	641,23837	0.9482	0,1161	2.533	76,5660	7.117
0.90000	643,23880	0.9519	0,1161	2.533	76,5660	7.117
0.90500	645,23923	0.9556	0,1161	2.533	76,5660	7.117
0.91000	647,23966	0.9593	0,1161	2.533	76,5660	7.117
0.91500	649,24009	0.9630	0,1161	2.533	76,5660	7.117
0.92000	651,24052	0.9667	0,1161	2.533	76,5660	7.117
0.92500	653,24095	0.9704	0,1161	2.533	76,5660	7.117
0.93000	655,24138	0.9741	0,1161	2.533	76,5660	7.117
0.93500	657,24181	0.9778	0,1161	2.533	76,5660	7.117
0.94000	659,24224	0.9815	0,1161	2.533	76,5660	7.117
0.94500	661,24267	0.9852	0,1161	2.533	76,5660	7.117
0.95000	663,24310	0.9889	0,1161	2.533	76,5660	7.117
0.95500	665,24353	0.9926	0,1161	2.533	76,5660	7.117
0.96000	667,24396	0.9963	0,1161	2.533	76,5660	7.117
0.96500	669,24439	1.0000	0,1161	2.533	76,5660	7.117
0.97000	671,24482	1.0037	0,1161	2.533	76,5660	7.117
0.97500	673,24525	1.0074	0,1161	2.533	76,5660	7.117
0.98000	675,24568	1.0111	0,1161	2.533	76,5660	7.117
0.98500	677,24611	1.0148	0,1161	2.533	76,5660	7.117
0.99000	679,24654	1.0185	0,1161	2.533	76,5660	7.117
0.99500	681,24697	1.0222	0,1161	2.533	76,5660	7.117
1.00000	683,24740	1.0259	0,1161	2.533	76,5660	7.117

0.99500	681,24697	0.9963	1,0300	4.1241	120,7127	35.614
0.99000	679,24654	0.9926	1,0300	4.1241	120,7127	35.614
0.98500	677,24611	0.9889	1,0300	4.1241	120,7127	35.614
0.98000	675,24568	0.9852	1,0300	4.1241	120,7127	35.614
0.97500	673,24525	0.9815	1,0300	4.1241	120,7127	35.614
0.97000	671,24482	0.9778	1,0300	4.1241	120,7127	35.614
0.96500	669,24439	0.9741	1,0300	4.1241	120,7127	35.614
0.96000	667,24396	0.9704	1,0300	4.1241	120,7127	35.614
0.95500	665,24353	0.9667	1,0300	4.1241	120,7127	35.614
0.95000	663,24310	0.9630	1,0300	4.1241	120,7127	35.614
0.94500	661,24267	0.9593	1,0300	4.1241	120,7127	35.614
0.94000	659,24224	0.9556	1,0300	4.1241	120,7127	35.614
0.93500	657,24181	0.9519	1,0300	4.1241	120,7127	35.614
0.93000	655,24138	0.9482	1,0300	4.1241	120,7127	35.614
0.92500	653,24095	0.9445	1,0300	4.1241	120,7127	35.614
0.92000	651,24052	0.9408	1,0300	4.1241	120,7127	35.614
0.91500	649,24009	0.9371	1,0300	4.1241	120,7127	35.614
0.91000	647,23966	0.9334	1,0300	4.1241	120,7127	35.614
0.90500	645,23923	0.9297	1,0300	4.1241	120,7127	35.614
0.90000	643,23880	0.9260	1,0300	4.1241	120,7127	35.614
0.89500	641,23837	0.9223	1,0300	4.1241	120,7127	35.614
0.89000	639,23794	0.9186	1,0300	4.1241	120,7127	35.614
0.88500	637,23751	0.9149	1,0300	4.1241	120,7127	35.614
0.88000	635,23708	0.9112	1,0300	4.1241	120,7127	35.614
0.87500	633,23665	0.9075	1,0300	4.1241	120,7127	35.614
0.87000	631,23622	0.9038	1,0300	4.1241	120,7127	35.614
0.86500	629,23579	0.8999	1,0300	4.1241	120,7127	35.614
0.86000	627,23536	0.8960	1,0300	4.1241	120,7127	35.614
0.85500	625,23493	0.8921	1,0300	4.1241	120,7127	35.614
0.85000	623,23450	0.8882	1,0300	4.1241	120,7127	35.614
0.84500	621,23407	0.8843	1,0300	4.1241	120,7127	35.614
0.84000	619,23364	0.8804	1,0300	4.1241	120,7127	35.614
0.83500	617,23321	0.8765	1,0300	4.1241	120,7127	35.614
0.83000	615,23278	0.8726	1,0300	4.1241	120,7127	35.614
0.82500	613,23235	0.8687	1,0300	4.1241	120,7127	35.614
0.82000	611,23192	0.8648	1,0300	4.1241	120,7127	35.614
0.81500	609,23149	0.8609	1,0300	4.1241	120,7127	35.614
0.81000	607,23106	0.8570	1,0300	4.1241	120,7127	35.614
0.80500	605,23063	0.8531	1,0300	4.1241	120,7127	35.614
0.80000	603,23020	0.8492	1,0300	4.1241	120,7127	35.614
0.79500	601,22977	0.8453	1,0300	4.1241	120,7127	35.614
0.79000	599,22934	0.8414	1,0300	4.1241	120,7127	35.614
0.78500	597,22891	0.8375	1,0300	4.1241	120,7127	35.614
0.78000	595,22848	0.8336	1,0300	4.1241	120,7127	35.614
0.77500	593,22805	0.8297	1,0300	4.1241	120,7127	35.614
0.77000	591,22762	0.8258	1,0300	4.1241	120,7127	35.614
0.76500	589,22719	0.8219	1,0300	4.1241	120,7127	35.614
0.76000	587,22676	0.8180	1,0300	4.1241	120,7127	35.614
0.75500	585,22633	0.8141	1,0300	4.1241	120,7127	35.614
0.75000	583,22590	0.8102	1,0300	4.1241	120,7127	35.614
0.74500	581,22547	0.8063	1,0300	4.1241	120,7127	35.614
0.74000	579,22504	0.8024	1,0300	4.1241	120,7127	35.614
0.73500	577,22461	0.7985	1,0300	4.1241	120,7127	35.614
0.73000	575,22418	0.7946	1,0300	4.1241	120,7127	35.614
0.72500	573,22375	0.7907	1,0300	4.1241	120,7127	35.614
0.72000	571,22332	0.7868	1,0300	4.1241	120,7127	35.61



1,500000	154,15317	0,4881	0,0000	2,4957	615,6864	67,261
1,600000	157,40916	0,4881	0,0000	2,4957	615,6864	70,916
1,700000	267,62163	0,1887	0,0000	2,4957	615,6864	71,124
1,800000	302,91813	0,1908	0,0000	2,4957	615,6864	76,499
1,900000	301,11046	0,2708	0,0000	2,4957	615,6864	77,315
2,000000	177,51622	0,2844	0,0000	2,4957	615,6864	81,425
2,100000	155,78519	0,2141	0,0000	2,4957	615,6864	81,272
2,200000	116,72851	0,1888	0,0000	2,4957	615,6864	86,889
2,300000	120,50014	0,1860	0,0000	2,4957	615,6864	86,319
2,400000	106,50177	0,1867	0,0000	2,4957	615,6864	87,577
2,500000	94,48101	0,1100	0,0000	2,4957	615,6864	88,891
2,600000	81,91182	0,1156	0,0000	2,4957	615,6864	89,889
2,700000	74,79888	0,1030	0,0000	2,4957	615,6864	90,960
2,800000	66,85073	0,0921	0,0000	2,4957	615,6864	91,345
2,900000	57,90876	0,0825	0,0000	2,4957	615,6864	92,048
3,000000	51,41000	0,0741	0,0000	2,4957	615,6864	92,679
3,100000	44,46984	0,0668	0,0000	2,4957	615,6864	93,244
3,200000	41,75625	0,0613	0,0000	2,4957	615,6864	93,758
3,300000	39,59181	0,0565	0,0000	2,4957	615,6864	94,220
3,400000	35,90108	0,0495	0,0000	2,4957	615,6864	94,639
3,500000	32,62754	0,0440	0,0000	2,4957	615,6864	95,019
3,600000	29,71195	0,0390	0,0000	2,4957	615,6864	95,165
3,700000	27,11155	0,0347	0,0000	2,4957	615,6864	95,680
3,800000	24,78620	0,0311	0,0000	2,4957	615,6864	95,968
3,900000	22,89911	0,0287	0,0000	2,4957	615,6864	96,232
4,000000	20,82658	0,0264	0,0000	2,4957	615,6864	96,471
4,100000	19,18115	0,0244	0,0000	2,4957	615,6864	96,689
4,200000	17,62117	0,0229	0,0000	2,4957	615,6864	96,889
4,300000	16,24875	0,0220	0,0000	2,4957	615,6864	97,087
4,400000	15,00841	0,0207	0,0000	2,4957	615,6864	97,260
4,500000	13,97874	0,0191	0,0000	2,4957	615,6864	97,421
4,600000	12,95213	0,0177	0,0000	2,4957	615,6864	97,569
4,700000	11,93126	0,0164	0,0000	2,4957	615,6864	97,706
4,800000	11,07005	0,0152	0,0000	2,4957	615,6864	97,834
4,900000	10,29808	0,0142	0,0000	2,4957	615,6864	97,952
5,000000	9,58446	0,0132	0,0000	2,4957	615,6864	98,061
5,100000	8,91856	0,0123	0,0000	2,4957	615,6864	98,164
5,200000	8,31852	0,0115	0,0000	2,4957	615,6864	98,261
5,300000	7,79132	0,0107	0,0000	2,4957	615,6864	98,351
5,400000	7,28762	0,0100	0,0000	2,4957	615,6864	98,435
5,500000	6,80216	0,0094	0,0000	2,4957	615,6864	98,513
5,600000	6,33941	0,0088	0,0000	2,4957	615,6864	98,584
5,700000	5,89916	0,0084	0,0000	2,4957	615,6864	98,655
5,800000	5,48372	0,0079	0,0000	2,4957	615,6864	98,728
5,900000	5,09300	0,0074	0,0000	2,4957	615,6864	98,798
6,000000	4,74422	0,0069	0,0000	2,4957	615,6864	98,838
6,100000	4,43594	0,0065	0,0000	2,4957	615,6864	98,891
6,200000	4,16642	0,0061	0,0000	2,4957	615,6864	98,942
6,300000	3,93594	0,0058	0,0000	2,4957	615,6864	98,989
6,400000	3,74284	0,0055	0,0000	2,4957	615,6864	99,035
6,500000	3,58574	0,0051	0,0000	2,4957	615,6864	99,077
6,600000	3,46313	0,0049	0,0000	2,4957	615,6864	99,114
6,700000	3,37483	0,0046	0,0000	2,4957	615,6864	99,156
6,800000	3,31872	0,0044	0,0000	2,4957	615,6864	99,192
6,900000	2,29937	0,0041	0,0000	2,4957	615,6864	99,224

7,000000	2,41861	0,0039	0,0000	1,1172	891,7084	99,258
7,100000	2,46985	0,0037	0,0000	1,1172	891,7084	99,289
7,200000	2,54884	0,0035	0,0000	1,1172	891,7084	99,318
7,300000	2,61142	0,0033	0,0000	1,1172	891,7084	99,346
7,400000	2,61208	0,0032	0,0000	1,1172	891,7084	99,372
7,500000	2,64004	0,0030	0,0000	1,1172	891,7084	99,397
7,600000	2,69652	0,0029	0,0000	1,1172	891,7084	99,421
7,700000	1,74512	0,0027	0,0000	1,1172	891,7084	99,448
7,800000	1,90197	0,0026	0,0000	1,1172	891,7084	99,465
7,900000	1,91318	0,0025	0,0000	1,1172	891,7084	99,488
8,000000	1,71084	0,0024	0,0000	1,1172	891,7084	99,506
8,100000	1,65957	0,0023	0,0000	1,1172	891,7084	99,524
8,200000	1,57862	0,0022	0,0000	1,1172	891,7084	99,542
8,300000	1,50874	0,0021	0,0000	1,1172	891,7084	99,559
8,400000	1,44271	0,0020	0,0000	1,1172	891,7084	99,574
8,500000	1,38022	0,0019	0,0000	1,1172	891,7084	99,591
8,600000	1,32108	0,0018	0,0000	1,1172	891,7084	99,604
8,700000	1,26507	0,0017	0,0000	1,1172	891,7084	99,621
8,800000	1,21149	0,0016	0,0000	1,1172	891,7084	99,635
8,900000	1,16166	0,0015	0,0000	1,1172	891,7084	99,648
9,000000	1,11191	0,0015	0,0000	1,1172	891,7084	99,667
9,100000	1,06854	0,0014	0,0000	1,1172	891,7084	99,673
9,200000	1,02551	0,0014	0,0000	1,1172	891,7084	99,684
9,300000	0,98264	0,0013	0,0000	1,1172	891,7084	99,695
9,400000	0,94575	0,0013	0,0000	1,1172	891,7084	99,706
9,500000	0,90875	0,0013	0,0000	1,1172	891,7084	99,716
9,600000	0,87155	0,0012	0,0000	1,1172	891,7084	99,726
9,700000	0,84003	0,0012	0,0000	1,1172	891,7084	99,736
9,800000	0,80811	0,0011	0,0000	1,1172	891,7084	99,745
9,900000	0,77764	0,0011	0,0000	1,1172	891,7084	99,754
10,000000	0,74867	0,0010	0,0000	1,1172	891,7084	99,762
10,100000	0,72160	0,0010	0,0000	1,1172	891,7084	99,770
10,200000	0,69642	0,0010	0,0000	1,1172	891,7084	99,778
10,300000	0,66914	0,0009	0,0000	1,1172	891,7084	99,786
10,400000	0,64510	0,0009	0,0000	1,1172	891,7084	99,793
10,500000	0,62210	0,0009	0,0000	1,1172	891,7084	99,800
10,600000	0,60011	0,0008	0,0000	1,1172	891,7084	99,807
10,700000	0,57924	0,0008	0,0000	1,1172	891,7084	99,813
10,800000	0,55914	0,0008	0,0000	1,1172	891,7084	99,820
10,900000	0,53991	0,0007	0,0000	1,1172	891,7084	99,828
11,000000	0,52147	0,0007	0,0000	1,1172	891,7084	99,832
11,100000	0,50382	0,0007	0,0000	1,1172	891,7084	99,837
11,200000	0,48691	0,0007	0,0000	1,1172	891,7084	99,843
11,300000	0,47070	0,0006	0,0000	1,1172	891,7084	99,848
11,400000	0,45516	0,0006	0,0000	1,1172	891,7084	99,853
11,500000	0,44025	0,0006	0,0000	1,1172	891,7084	99,858
11,600000	0,42594	0,0006	0,0000	1,1172	891,7084	99,863
11,700000	0,41222	0,0006	0,0000	1,1172	891,7084	99,868
11,800000	0,39908	0,0005	0,0000	1,1172	891,7084	99,872
11,900000	0,38639	0,0005	0,0000	1,1172	891,7084	99,877
12,000000	0,37423	0,0004	0,0000	1,1172	891,7084	99,881

RESISTANCE COEFFICIENT DATA FOR PLANK RADIATION, MECHANICAL DIVISION, GEORGE EASTMAN COMPANY

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1424.8 DEGREES CENTIGRADE FOR THE PLANK SOURCE. LIGHTS R = 3600.0  
 DEGREES FAHRENHEIT = 8020.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRONS IS 1.0000 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 1.0000 IN LUMENS/CM<sup>2</sup>.

THE LUMINANCE (TYPE OF TOTAL VISIBLE FLUX) IS 1.0000 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.194.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 200.79 LUMENS/CM<sup>2</sup>.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.000194 WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.40 MICRONS.

THE WAVELENGTH PRODUCES MOST EFFICIENCY IS 0.40 MICRONS.  
 LUMENS/WATT RATIO IS 200.79 LUMENS/CM<sup>2</sup>.

THE TOTAL POWER RADIATED IS 5.1922 WATT/CM<sup>2</sup> OR 0.51922 WATT/CM<sup>2</sup> PER MICRON.  
 WATT/CM<sup>2</sup> PER MICRON = 0.51922

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1.2740 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT X RADIANT EFFICIENCY X VISIBILITY FACTOR,  
 WHERE RADIANT EFFICIENCY IS EXPRESSED IN WATTS PER WATT CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EFFICIENCY CAN BE CALCULATED USING THE  
 TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: R = R<sub>0</sub> (1 + MΔT).

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1424.8 DEGREES CENTIGRADE FOR THE PLANK SOURCE. LIGHTS R = 3600.0  
 DEGREES FAHRENHEIT = 8020.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> PER MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPO. FACTOR PER WATT	POWER PER CM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	28.41894	0.1037	6.1100	11.1144	3.1504	0.331
0.36000	45.27036	0.1102	6.0000	11.0540	3.4446	0.374
0.37000	71.21117	0.1101	6.0000	10.9927	4.0128	0.421
0.38000	101.24302	0.1100	6.0000	10.9317	4.5306	0.473
0.39000	136.28917	0.1100	6.0000	10.8704	5.0027	0.528
0.40000	176.34077	0.1100	6.0000	10.8089	5.4302	0.584
0.41000	221.39774	0.1100	6.0000	10.7471	5.8122	0.631
0.42000	271.46007	0.1100	6.0000	10.6851	6.1482	0.671
0.43000	326.52774	0.1100	6.0000	10.6229	6.4384	0.707
0.44000	386.60077	0.1100	6.0000	10.5604	6.6828	0.739
0.45000	451.67917	0.1100	6.0000	10.4976	6.8814	0.768
0.46000	521.76274	0.1100	6.0000	10.4344	7.0442	0.794
0.47000	596.85117	0.1100	6.0000	10.3709	7.1712	0.817
0.48000	676.94474	0.1100	6.0000	10.3071	7.2624	0.837
0.49000	762.04302	0.1100	6.0000	10.2430	7.3180	0.854
0.50000	852.14607	0.1100	6.0000	10.1786	7.3482	0.868
0.51000	947.25374	0.1100	6.0000	10.1139	7.3530	0.879
0.52000	1047.36677	0.1100	6.0000	10.0489	7.3334	0.887
0.53000	1152.48474	0.1100	6.0000	9.9836	7.2894	0.892
0.54000	1262.60774	0.1100	6.0000	9.9179	7.2212	0.896
0.55000	1377.73574	0.1100	6.0000	9.8519	7.1294	0.898
0.56000	1497.86877	0.1100	6.0000	9.7856	7.0142	0.899
0.57000	1622.99674	0.1100	6.0000	9.7189	6.8762	0.899
0.58000	1753.12977	0.1100	6.0000	9.6519	6.7162	0.898
0.59000	1888.26774	0.1100	6.0000	9.5846	6.5342	0.896
0.60000	2028.40077	0.1100	6.0000	9.5169	6.3302	0.893
0.61000	2173.53874	0.1100	6.0000	9.4489	6.1042	0.889
0.62000	2323.68077	0.1100	6.0000	9.3806	5.8562	0.884
0.63000	2478.81874	0.1100	6.0000	9.3119	5.5872	0.878
0.64000	2638.96077	0.1100	6.0000	9.2429	5.2972	0.871
0.65000	2804.10874	0.1100	6.0000	9.1736	4.9862	0.863
0.66000	2974.26077	0.1100	6.0000	9.1039	4.6542	0.854
0.67000	3149.41874	0.1100	6.0000	9.0339	4.3012	0.844
0.68000	3329.58077	0.1100	6.0000	8.9636	3.9272	0.833
0.69000	3514.74874	0.1100	6.0000	8.8929	3.5322	0.821
0.70000	3704.92077	0.1100	6.0000	8.8219	3.1172	0.808
0.71000	3899.09874	0.1100	6.0000	8.7506	2.6822	0.794
0.72000	4097.28077	0.1100	6.0000	8.6789	2.2272	0.779
0.73000	4299.46874	0.1100	6.0000	8.6069	1.7522	0.763
0.74000	4505.66077	0.1100	6.0000	8.5346	1.2572	0.746
0.75000	4715.85874	0.1100	6.0000	8.4619	0.7422	0.728
0.76000	4930.06077	0.1100	6.0000	8.3889	0.2072	0.709
0.77000	5148.26874	0.1100	6.0000	8.3156	0.0000	0.689
0.78000	5370.48077	0.1100	6.0000	8.2419	0.0000	0.668
0.79000	5596.69874	0.1100	6.0000	8.1679	0.0000	0.646
0.80000	5826.92077	0.1100	6.0000	8.0936	0.0000	0.623
0.81000	6061.14874	0.1100	6.0000	8.0189	0.0000	0.599
0.82000	6299.38077	0.1100	6.0000	7.9439	0.0000	0.574
0.83000	6541.61874	0.1100	6.0000	7.8686	0.0000	0.548
0.84000	6787.86077	0.1100	6.0000	7.7929	0.0000	0.521
0.85000	7038.10874	0.1100	6.0000	7.7169	0.0000	0.493
0.86000	7292.36077	0.1100	6.0000	7.6406	0.0000	0.464
0.87000	7550.61874	0.1100	6.0000	7.5639	0.0000	0.434
0.88000	7812.88077	0.1100	6.0000	7.4869	0.0000	0.403
0.89000	8079.14874	0.1100	6.0000	7.4096	0.0000	0.371
0.90000	8349.42077	0.1100	6.0000	7.3319	0.0000	0.338
0.91000	8623.69874	0.1100	6.0000	7.2539	0.0000	0.304
0.92000	8901.98077	0.1100	6.0000	7.1756	0.0000	0.269
0.93000	9184.26874	0.1100	6.0000	7.0969	0.0000	0.233
0.94000	9470.56077	0.1100	6.0000	7.0179	0.0000	0.196
0.95000	9760.85874	0.1100	6.0000	6.9386	0.0000	0.158
0.96000	10055.16077	0.1100	6.0000	6.8589	0.0000	0.119
0.97000	10353.46874	0.1100	6.0000	6.7789	0.0000	0.079
0.98000	10655.78077	0.1100	6.0000	6.6986	0.0000	0.038
0.99000	10962.09874	0.1100	6.0000	6.6179	0.0000	0.000
1.00000	11272.42077	0.1100	6.0000	6.5369	0.0000	0.000

0.57500	971.44617	0.7340	355553.8053	6.0550	74.3700	7.810
0.58000	981.05580	0.7444	383752.4541	6.0664	77.2513	8.112
0.58500	990.44318	0.7548	324026.181	6.0779	80.1802	8.420
0.59000	999.60424	0.7652	388452.1008	6.0894	83.1554	8.732
0.59500	1008.53550	0.7757	287591.8758	6.1008	86.1758	9.049
0.60000	1017.23380	0.7862	248842.6795	6.1123	89.2404	9.371
0.60500	1025.69655	0.8017	261283.5603	6.1238	92.3478	9.697
0.61000	1033.92153	0.8143	216826.5212	6.1352	95.4949	10.024
0.61500	1041.90694	0.8245	182495.0654	6.1467	98.6866	10.363
0.62000	1049.65151	0.8345	149311.7121	6.1581	101.9156	10.702
0.62500	1057.15610	0.8441	143443.4979	6.1696	105.1827	11.045
0.63000	1064.41414	0.8535	119727.6273	6.1810	108.4857	11.392
0.63500	1071.43130	0.8625	99074.4033	6.1924	111.8244	11.743
0.64000	1078.20564	0.8712	80704.4713	6.2038	115.2006	12.097
0.64500	1084.73749	0.8796	64255.3440	6.2152	118.6081	12.454
0.65000	1091.02748	0.8876	50278.5597	6.2266	122.0474	12.814
0.65500	1097.07454	0.8954	38394.9754	6.2379	125.5179	13.178
0.66000	1102.88583	0.9029	29155.7043	6.2493	129.0179	13.544
0.66500	1108.45474	0.9100	21674.7774	6.2606	132.5444	13.910
0.67000	1113.78103	0.9169	15532.0029	6.2719	136.1021	14.279
0.67500	1118.86044	0.9234	11241.4444	6.2832	139.6849	14.648
0.68000	1123.70713	0.9297	8364.4324	6.2945	143.2994	15.017
0.68500	1128.33324	0.9354	5894.1545	6.3058	146.9471	15.386
0.69000	1132.75131	0.9413	4084.1004	6.3171	150.6281	15.754
0.69500	1136.95304	0.9467	2844.5464	6.3284	154.3447	16.124
0.70000	1140.94379	0.9518	2045.7513	6.3397	158.0986	16.494
0.70500	1144.72374	0.9564	1444.5173	6.3509	161.8917	16.864
0.71000	1148.29881	0.9611	1048.4393	6.3622	165.7151	17.234
0.71500	1151.67408	0.9653	744.5444	6.3735	169.5689	17.604
0.72000	1154.85487	0.9693	544.8519	6.3847	173.4540	17.974
0.72500	1157.93624	0.9730	360.5730	6.3959	177.3714	18.344
0.73000	1160.91381	0.9765	254.4459	6.4072	181.3219	18.714
0.73500	1163.88994	0.9797	207.4442	6.4184	185.3064	19.084
0.74000	1166.86710	0.9824	154.0541	6.4297	189.3259	19.454
0.74500	1169.84612	0.9851	104.2311	6.4409	193.3804	19.824
0.75000	1172.82855	0.9876	52.2305	6.4522	197.4699	20.194
0.75500	1175.81542	0.9900	0.0000	6.4635	201.5944	20.564
0.76000	1178.80689	0.9925	0.0000	6.4747	205.7549	20.934
0.76500	1181.80302	0.9949	0.0000	6.4859	209.9514	21.304
0.77000	1184.80487	0.9974	0.0000	6.4972	214.1849	21.674
0.77500	1187.81242	0.9997	0.0000	6.5084	218.4554	22.044
0.78000	1190.82567	0.9999	0.0000	6.5197	222.7629	22.414
0.78500	1193.84464	0.9999	0.0000	6.5309	227.1074	22.784
0.79000	1196.86931	0.9999	0.0000	6.5422	231.4889	23.154
0.79500	1199.90068	0.9999	0.0000	6.5535	235.9074	23.524
0.80000	1202.93874	0.9999	0.0000	6.5647	240.3629	23.894
0.80500	1205.98341	0.9999	0.0000	6.5760	244.8554	24.264
0.81000	1209.03468	0.9999	0.0000	6.5872	249.3859	24.634
0.81500	1212.09255	0.9999	0.0000	6.5985	253.9544	25.004
0.82000	1215.15692	0.9999	0.0000	6.6097	258.5619	25.374
0.82500	1218.22779	0.9999	0.0000	6.6210	263.2074	25.744
0.83000	1221.30516	0.9999	0.0000	6.6322	267.8909	26.114
0.83500	1224.38903	0.9999	0.0000	6.6435	272.6124	26.484
0.84000	1227.47940	0.9999	0.0000	6.6547	277.3719	26.854
0.84500	1230.57627	0.9999	0.0000	6.6660	282.1694	27.224
0.85000	1233.67964	0.9999	0.0000	6.6772	286.9949	27.594
0.85500	1236.78951	0.9999	0.0000	6.6885	291.8574	27.964
0.86000	1239.90588	0.9999	0.0000	6.6997	296.7569	28.334
0.86500	1243.02875	0.9999	0.0000	6.7110	301.6934	28.704
0.87000	1246.15812	0.9999	0.0000	6.7222	306.6669	29.074
0.87500	1249.29399	0.9999	0.0000	6.7335	311.6774	29.444
0.88000	1252.43636	0.9999	0.0000	6.7447	316.7249	29.814
0.88500	1255.58523	0.9999	0.0000	6.7560	321.8094	30.184
0.89000	1258.74060	0.9999	0.0000	6.7672	326.9309	30.554
0.89500	1261.90247	0.9999	0.0000	6.7785	332.0894	30.924
0.90000	1265.07084	0.9999	0.0000	6.7897	337.2849	31.294
0.90500	1268.24571	0.9999	0.0000	6.8010	342.5174	31.664
0.91000	1271.42708	0.9999	0.0000	6.8122	347.7869	32.034
0.91500	1274.61495	0.9999	0.0000	6.8235	353.0934	32.404
0.92000	1277.80932	0.9999	0.0000	6.8347	358.4369	32.774
0.92500	1281.01019	0.9999	0.0000	6.8460	363.8174	33.144
0.93000	1284.21756	0.9999	0.0000	6.8572	369.2349	33.514
0.93500	1287.43143	0.9999	0.0000	6.8685	374.6894	33.884
0.94000	1290.65180	0.9999	0.0000	6.8797	380.1809	34.254

0.94500	1293.87867	0.9999	0.0000	6.8910	385.7084	34.624
0.95000	1297.11204	0.9999	0.0000	6.9022	391.2719	34.994
0.95500	1300.35191	0.9999	0.0000	6.9135	396.8724	35.364
0.96000	1303.59828	0.9999	0.0000	6.9247	402.5099	35.734
0.96500	1306.85115	0.9999	0.0000	6.9360	408.1844	36.104
0.97000	1310.11052	0.9999	0.0000	6.9472	413.8959	36.474
0.97500	1313.37639	0.9999	0.0000	6.9585	419.6434	36.844
0.98000	1316.64876	0.9999	0.0000	6.9697	425.4269	37.214
0.98500	1319.92763	0.9999	0.0000	6.9810	431.2474	37.584
0.99000	1323.21300	0.9999	0.0000	6.9922	437.1049	37.954
0.99500	1326.50487	0.9999	0.0000	7.0035	443.0004	38.324
1.00000	1329.80324	0.9999	0.0000	7.0147	448.9329	38.694
1.00500	1333.10811	0.9999	0.0000	7.0260	454.9024	39.064
1.01000	1336.41948	0.9999	0.0000	7.0372	460.9089	39.434
1.01500	1339.73735	0.9999	0.0000	7.0485	466.9524	39.804
1.02000	1343.06172	0.9999	0.0000	7.0597	473.0329	40.174
1.02500	1346.39259	0.9999	0.0000	7.0710	479.1504	40.544
1.03000	1349.72996	0.9999	0.0000	7.0822	485.3049	40.914
1.03500	1353.07383	0.9999	0.0000	7.0935	491.4974	41.284
1.04000	1356.42420	0.9999	0.0000	7.1047	497.7279	41.654
1.04500	1359.78107	0.9999	0.0000	7.1160	503.9954	42.024
1.05000	1363.14444	0.9999	0.0000	7.1272	510.2999	42.394
1.05500	1366.51431	0.9999	0.0000	7.1385	516.6414	42.764
1.06000	1369.89068	0.9999	0.0000	7.1497	523.0199	43.134
1.06500	1373.27355	0.9999	0.0000	7.1610	529.4354	43.504
1.07000	1376.66292	0.9999	0.0000	7.1722	535.8879	43.874
1.07500	1380.05879	0.9999	0.0000	7.1835	542.3774	44.244
1.08000	1383.46116	0.9999	0.0000	7.1947	548.9039	44.614
1.08500	1386.86993	0.9999	0.0000	7.2060	555.4674	44.984
1.09000	1390.28510	0.9999	0.0000	7.2172	562.0679	45.354
1.09500	1393.70667	0.9999	0.0000	7.2285	568.7054	45.724
1.10000	1397.13464	0.9999	0.0000	7.2397	575.3799	46.094
1.10500	1400.56901	0.9999	0.0000	7.2510	582.0914	46.464
1.11000	1404.01078	0.9999	0.0000	7.2622	588.8409	46.834
1.11500	1407.45995	0.9999	0.0000	7.2735	595.6284	47.204
1.12000	1410.91652	0.9999	0.0000	7.2847	602.4529	47.574
1.12500	1414.38049	0.9999	0.0000	7.2960	609.3144	47.944
1.13000	1417.85186	0.9999	0.0000	7.3072	616.2129	48.314
1.13500	1421.33063	0.9999	0.0000	7.3185	623.1484	48.684
1.14000	1424.81680	0.9999	0.0000	7.3297	630.1209	49.054
1.14500	1428.31037	0.9999	0.0000	7.3410	637.1304	49.424
1.15000	1431.81134	0.9999	0.0000	7.3522	644.1769	49.794
1.15500	1435.31971	0.9999	0.0000	7.3635	651.2594	50.164
1.16000	1438.83548	0.9999	0.0000	7.3747	658.3779	50.534
1.16500	1442.35865	0.9999	0.0000	7.3860	665.5324	50.904
1.17000	1445.88922	0.9999	0.0000	7.3972	672.7239	51.274
1.17500	1449.42729	0.9999	0.0000	7.4085	679.9514	51.644
1.18000	1452.97286	0.9999	0.0000	7.4197	687.2159	52.014
1.18500	1456.52593	0.9999	0.0000	7.4310	694.5174	52.384
1.19000	1460.08650	0.9999	0.0000	7.4422	701.8559	52.754
1.19500	1463.65457	0.9999	0.0000	7.4535	709.2304	53.124
1.20000	1467.23014	0.9999	0.0000	7.4647	716.6419	53.494
1.20500	1470.81321	0.9999	0.0000	7.4760	724.0894	53.864
1.21000	1474.40378	0.9999	0.0000	7.4872	731.5729	54.234
1.21500	1477.99985	0.9999	0.0000	7.4985	739.0924	54.604
1.22000	1481.60242	0.9999	0.0000	7.5097	746.6479	54.974
1.22500	1485.21149	0.9999	0.0000	7.5210	754.2394	55.344
1.23000	1488.82706	0.9999	0.0000	7.5322	761.8669	55.714
1.23500	1492.44913	0.9999	0.0000	7.5435	769.5304	56.084
1.24000	1496.07770	0.9999	0.0000	7.5547	777.2299	56.454
1.24500	1499.71277	0.9999	0.0000	7.5660	784.9654	56.824
1.25000	1503.35434	0.9999	0.0000	7.5772	792.7369	57.194
1.25500	1507.00241	0.9999	0.0000	7.5885	800.5444	57.564

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VISIBILITY AND OTHER DATA FOR PLANAR SURFACES, MECHANICS DIVISION, CALIF. UNIVERSITY OF BERKELEY.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3373.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3100.0  
DEGREES FAHRENHEIT = 4110.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 174.66 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 42845.02 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 13656.08 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.203.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 209.492 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 42.567 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7481 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 1.0000 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EXITANCE TO TOTAL RADIANT EXITANCE.

THE TOTAL POWER RADIATED IS 1000.31 WATT/CM<sup>2</sup> OR 1.000310E+07 ENR/SEC/CM<sup>2</sup> OR 1.000310E+07 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 434.09 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT \* RADIANT EXITANCE \* VISIBILITY FACTOR, WHERE RADIANT EXITANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EXITANCE (4) MAY BE CALCULATED USING THE TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta E/E = M \Delta T/T$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3373.4 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3100.0  
DEGREES FAHRENHEIT = 4110.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPO. IN TEMP. WATT	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	91.44942	0.1000	0.0000	11.2614	3.7537	0.373
0.35500	100.91132	0.1100	0.0000	11.1014	4.2330	0.421
0.36000	109.44071	0.1200	0.0000	10.9477	4.7544	0.471
0.36500	118.07814	0.1300	0.0000	10.7977	5.3224	0.520
0.37000	127.44260	0.1400	0.0000	10.6510	5.9367	0.590
0.37500	137.57154	0.1500	0.0000	10.5099	6.5996	0.654
0.38000	147.55117	0.1600	0.0000	10.3714	7.3135	0.727
0.38500	158.46632	0.1700	0.0000	10.2370	8.0787	0.803
0.39000	169.40104	0.1800	0.0000	10.1058	8.8943	0.884
0.39500	180.43812	0.1900	0.0000	9.9779	9.7712	0.971
0.40000	192.15052	0.2000	0.0000	9.8533	10.7051	1.064
0.40500	203.64687	0.2100	11.09471	9.7317	11.6993	1.162
0.41000	215.24051	0.2200	176.2401	9.6131	12.7490	1.267
0.41500	226.24067	0.2300	341.4445	9.4973	13.8554	1.377
0.42000	240.70809	0.2400	454.7240	9.3844	15.0278	1.493
0.42500	251.34153	0.2500	1257.6065	9.2740	16.2629	1.614
0.43000	266.14044	0.2600	2099.6332	9.1663	17.5617	1.745
0.43500	279.14504	0.2700	3188.9512	9.0610	18.9249	1.881
0.44000	292.23600	0.2800	4570.9411	8.9582	20.3513	2.023
0.44500	305.42733	0.2900	6023.0269	8.8577	21.8474	2.171
0.45000	318.70455	0.3000	7635.3255	8.7594	23.4077	2.324
0.45500	332.04574	0.3100	10037.9743	8.6632	25.0344	2.488
0.46000	345.43139	0.3200	14093.6006	8.5697	26.7283	2.654
0.46500	358.84211	0.3300	18094.9159	8.4772	28.4800	2.831
0.47000	372.25921	0.3400	23035.3997	8.3872	30.3167	3.013
0.47500	385.66432	0.3500	29372.1943	8.2991	32.2115	3.201
0.48000	399.01969	0.3600	37717.2317	8.2128	34.1733	3.396
0.48500	412.33814	0.3700	47389.3644	8.1284	36.2014	3.597
0.49000	425.43307	0.3800	60201.9418	8.0454	38.2969	3.806
0.49500	438.81853	0.3900	76980.3223	7.9646	40.4580	4.020
0.50000	451.90919	0.4000	99297.3355	7.8852	42.6849	4.247
0.50500	464.89044	0.4100	128443.0770	7.8071	44.9749	4.489
0.51000	477.74829	0.4200	163409.0260	7.7310	47.3336	4.704
0.51500	490.46950	0.4300	202779.7091	7.6562	49.7542	4.944
0.52000	503.04144	0.4400	242868.4260	7.5829	52.2380	5.191
0.52500	515.45214	0.4500	277952.3324	7.5110	54.7843	5.444
0.53000	527.69094	0.4600	309311.3425	7.4404	57.3923	5.703
0.53500	539.74683	0.4700	335830.4804	7.3712	60.0609	5.968
0.54000	551.61015	0.4800	357840.3334	7.3033	62.7894	6.240
0.54500	563.27179	0.4900	375304.3233	7.2366	65.5767	6.517
0.55000	574.72133	0.5000	388857.0042	7.1712	68.4210	6.799
0.55500	585.95698	0.5100	39845.7441	7.1069	71.3236	7.088
0.56000	596.96554	0.5200	403904.9138	7.0439	74.2810	7.382
0.56500	607.74263	0.5300	404506.4230	6.9819	77.2924	7.681
0.57000	618.28221	0.5400	400251.1720	6.9211	80.3540	7.985

0.57500	478.57907	0.7518	191101.4650	4.4413	41.4752	4.205
0.58000	415.42417	0.7657	177412.5118	4.4424	45.4811	4.610
0.58500	444.42541	0.7776	160219.4040	4.4449	47.4811	4.915
0.59000	457.96821	0.7849	144495.7168	4.4482	93.1272	9.258
0.59500	467.25255	0.8000	115143.1191	4.4525	98.4803	9.584
0.60000	476.27442	0.8104	200175.3222	4.4577	99.7802	9.917
0.60500	485.31117	0.8211	244131.4521	4.4639	101.2024	10.254
0.61000	491.52915	0.8311	217316.4441	4.4707	106.4421	10.594
0.61500	701.25755	0.8414	217441.2011	4.4782	110.1175	10.945
0.62000	700.71902	0.8520	181874.2110	4.4877	111.4441	11.295
0.62500	717.41111	0.8631	181874.2110	4.4981	117.2142	11.650
0.63000	724.41049	0.8740	100416.1112	4.5097	120.4192	12.004
0.63500	731.90004	0.8856	100416.1112	4.5224	124.4421	12.370
0.64000	738.40192	0.8979	47028.1134	4.5361	128.4421	12.738
0.64500	745.41914	0.9114	40042.4142	4.5507	131.4704	13.104
0.65000	751.42421	0.9254	44716.0142	4.5664	135.4142	13.474
0.65500	757.42924	0.9400	41749.4421	4.5831	139.4800	13.852
0.66000	763.43421	0.9551	11441.2244	4.6007	141.4915	14.231
0.66500	769.43924	0.9707	21541.4719	4.6191	147.0244	14.610
0.67000	775.44421	0.9868	14158.0714	4.6382	150.4421	14.994
0.67500	779.44924	0.9934	12195.0444	4.6581	154.7714	15.380
0.68000	784.45421	0.9997	9070.1121	4.6787	158.4421	15.769
0.68500	789.45924	0.9997	4146.0424	4.7007	162.4192	16.160
0.69000	791.46299	0.9997	4474.4727	4.7247	165.4741	16.551
0.69500	797.46777	0.9997	1091.4147	4.7507	170.4510	16.944
0.70000	801.47251	0.9997	7714.1741	4.7781	174.5515	17.344
0.70500	405.73144	0.9997	1147.5220	4.8072	178.5677	17.745
0.71000	408.43642	0.9997	1154.4022	4.8379	184.4014	18.146
0.71500	411.44140	0.9997	427.7420	4.8691	184.4514	18.544
0.72000	414.44642	0.9997	409.2240	4.9007	190.7145	18.952
0.72500	417.45140	0.9997	344.9740	4.9327	194.7047	19.357
0.73000	419.45642	0.9997	274.4440	4.9651	194.4421	19.764
0.73500	421.46140	0.9997	224.4440	4.9979	202.4910	20.172
0.74000	423.46642	0.9997	144.4440	5.0311	207.1044	20.581
0.74500	425.47140	0.9997	112.1140	5.0647	211.2115	20.991
0.75000	427.47642	0.9997	54.2701	5.0987	215.3649	21.401
0.75500	430.48140	0.9997	0.0000	5.1331	224.4542	22.224
0.76000	432.48642	0.9997	0.0000	5.1679	231.0470	23.051
0.76500	434.49140	0.9997	0.0000	5.2031	240.7040	23.879
0.77000	436.49642	0.9997	0.0000	5.2387	248.4140	24.704
0.77500	438.50140	0.9997	0.0000	5.2747	254.4745	25.536
0.78000	440.50642	0.9997	0.0000	5.3111	263.3112	26.365
0.78500	442.51140	0.9997	0.0000	5.3479	273.4174	27.192
0.79000	444.51642	0.9997	0.0000	5.3851	281.0400	28.014
0.79500	446.52140	0.9997	0.0000	5.4227	290.2301	28.842
0.80000	448.52642	0.9997	0.0000	5.4607	298.5011	29.664
0.80500	450.53140	0.9997	0.0000	5.4991	306.7343	30.481
0.81000	452.53642	0.9997	0.0000	5.5379	314.9342	31.294
0.81500	454.54140	0.9997	0.0000	5.5771	324.0025	32.107
0.82000	456.54642	0.9997	0.0000	5.6167	331.2074	32.911
0.82500	458.55140	0.9997	0.0000	5.6564	339.2742	33.715
0.83000	460.55642	0.9997	0.0000	5.6964	347.2025	34.517
0.83500	462.56140	0.9997	0.0000	5.7367	355.2541	35.303
0.84000	464.56642	0.9997	0.0000	5.7774	363.1612	36.089
0.84500	466.57140	0.9997	0.0000	5.8187	371.0159	36.864

0.95000	775.43000	0.9257	0.0000	6.2151	378.7949	37.642
0.95500	764.41755	0.9419	0.0000	6.2561	386.5144	38.410
0.96000	762.20441	0.9584	0.0000	6.2974	394.1745	39.170
0.96500	755.11557	0.9754	0.0000	6.3392	401.7623	39.924
0.97000	744.24042	0.9921	0.0000	6.3814	409.2841	40.671
0.97500	741.04020	0.9997	0.0000	6.4241	416.7270	41.411
0.98000	733.72491	0.9997	0.0000	6.4672	424.1011	42.144
0.98500	724.24179	0.9997	0.0000	6.5107	431.4012	42.870
0.99000	714.71291	0.9997	0.0000	6.5547	438.6244	43.584
0.99500	701.14554	0.9997	0.0000	6.5991	445.7744	44.294
1.00000	701.14210	0.9997	0.0000	6.6439	452.8440	45.001
1.00500	695.44047	0.9997	0.0000	6.6891	459.8110	45.694
1.01000	687.77473	0.9997	0.0000	6.7347	466.7599	46.383
1.01500	679.90210	0.9997	0.0000	6.7807	473.5941	47.063
1.02000	671.94491	0.9997	0.0000	6.8271	480.3579	47.735
1.02500	664.74052	0.9997	0.0000	6.8739	487.0342	48.394
1.03000	654.12554	0.9997	0.0000	6.9211	493.6392	49.054
1.03500	644.17415	0.9997	0.0000	6.9687	500.1607	49.702
1.04000	640.22797	0.9997	0.0000	7.0167	506.6027	50.341
1.04500	632.24411	0.9997	0.0000	7.0651	512.9653	50.975
1.05000	624.16322	0.9997	0.0000	7.1139	519.2445	51.609
1.05500	616.45944	0.9997	0.0000	7.1631	525.4526	52.216
1.06000	604.54244	0.9997	0.0000	7.2127	531.5774	52.824
1.06500	600.71404	0.9997	0.0000	7.2627	537.6244	53.425
1.07000	592.03071	0.9997	0.0000	7.3131	543.5927	54.014
1.07500	585.16514	0.9997	0.0000	7.3639	549.4811	54.604
1.08000	577.44541	0.9997	0.0000	7.4151	555.2942	55.181
1.08500	569.77402	0.9997	0.0000	7.4667	561.0322	55.751
1.09000	562.15994	0.9997	0.0000	7.5187	566.6919	56.314
1.09500	554.60071	0.9997	0.0000	7.5711	572.2756	56.869
1.10000	547.10130	0.9997	0.0000	7.6239	577.7841	57.414
1.10500	539.64444	0.9997	0.0000	7.6771	583.2178	57.956
1.11000	532.24275	0.9997	0.0000	7.7307	588.5776	58.489
1.11500	524.94417	0.9997	0.0000	7.7847	593.8639	59.014
1.12000	517.75132	0.9997	0.0000	7.8391	599.0776	59.532
1.12500	510.54963	0.9997	0.0000	7.8939	604.2192	60.043
1.13000	503.34907	0.9997	0.0000	7.9491	609.2896	60.547
1.13500	496.14214	0.9997	0.0000	8.0047	614.2894	61.044
1.14000	489.94115	0.9997	0.0000	8.0607	619.2195	61.534
1.14500	482.67644	0.9997	0.0000	8.1171	624.0805	62.017
1.15000	475.44023	0.9997	0.0000	8.1739	628.8731	62.493
1.15500	469.18209	0.9997	0.0000	8.2311	633.5946	62.961
1.16000	462.95311	0.9997	0.0000	8.2887	638.2572	63.424
1.16500	456.00384	0.9997	0.0000	8.3467	642.8699	63.882
1.17000	449.53477	0.9997	0.0000	8.4051	647.3774	64.332
1.17500	443.14617	0.9997	0.0000	8.4639	651.8409	64.775
1.18000	436.83829	0.9997	0.0000	8.5231	656.2407	65.213
1.18500	430.41124	0.9997	0.0000	8.5827	660.5779	65.644
1.19000	424.44511	0.9997	0.0000	8.6427	664.8512	66.068
1.19500	418.39944	0.9997	0.0000	8.7031	669.0675	66.487
1.20000	412.41530	0.9997	0.0000	8.7639	673.2215	66.900
1.20500	406.51131	0.9997	0.0000	8.8251	677.3141	67.307
1.21000	400.64760	0.9997	0.0000	8.8867	681.3520	67.704
1.21500	394.84147	0.9997	0.0000	8.9487	685.3301	68.101
1.22000	389.27974	0.9997	0.0000	9.0111	689.2512	68.493

1.50000	181.49872	0.3601	0.0000	2.8431	893.1140	68.877
1.60000	132.1747	0.3641	0.0000	2.8425	728.4415	72.407
1.70000	287.85316	0.3649	0.0000	2.8416	749.7711	75.501
1.80000	248.40551	0.3691	0.0000	2.8454	746.5447	78.164
1.90000	217.08807	0.3681	0.0000	2.8471	849.8747	80.480
2.00000	189.30862	0.3720	0.0000	2.8497	810.1402	82.494
2.10000	165.55849	0.3685	0.0000	2.8480	847.8727	84.254
2.20000	145.27114	0.3741	0.0000	2.8498	841.3854	85.747
2.30000	127.78925	0.3712	0.0000	2.8492	877.0110	87.151
2.40000	112.75611	0.3752	0.0000	2.8481	849.0256	88.365
2.50000	99.46658	0.3797	0.0000	1.8472	849.4310	89.109
2.60000	88.60849	0.3842	0.0000	1.8424	849.0872	90.334
2.70000	78.88451	0.3844	0.0000	1.8414	917.4013	91.145
2.80000	70.43072	0.3846	0.0000	1.8417	924.8595	91.904
2.90000	63.05177	0.3856	0.0000	1.8429	911.5253	92.564
3.00000	56.99384	0.3879	0.0000	1.8427	917.5075	93.162
3.10000	50.92593	0.3911	0.0000	1.8444	912.8704	93.694
3.20000	45.91749	0.3951	0.0000	1.8431	917.7083	94.177
3.30000	41.51504	0.3928	0.0000	1.8414	912.0774	94.611
3.40000	37.41257	0.3957	0.0000	1.8491	916.0322	95.004
3.50000	34.18180	0.3910	0.0000	1.8485	919.4200	95.340
3.60000	31.11044	0.3973	0.0000	1.8451	912.4817	95.684
3.70000	28.37081	0.3940	0.0000	1.8454	915.8512	95.980
3.80000	25.92241	0.3911	0.0000	1.8464	916.5456	96.249
3.90000	23.72943	0.3955	0.0000	1.8490	911.0442	96.494
4.00000	21.78180	0.3961	0.0000	1.8473	913.1190	96.722
4.10000	19.99186	0.3967	0.0000	1.8465	915.3352	96.929
4.20000	18.34651	0.3921	0.0000	1.8415	917.3212	97.120
4.30000	16.84587	0.3920	0.0000	1.8473	919.0404	97.299
4.40000	15.45238	0.3948	0.0000	1.8414	910.7190	97.457
4.50000	14.16082	0.3973	0.0000	1.8410	912.2742	97.607
4.60000	13.09787	0.3961	0.0000	1.8404	913.6147	97.745
4.70000	12.24214	0.3912	0.0000	1.8472	914.9070	97.871
4.80000	11.54255	0.3918	0.0000	1.8461	916.1340	97.992
4.90000	10.97202	0.3929	0.0000	1.8455	917.2141	98.103
5.00000	9.47902	0.3930	0.0000	1.8454	918.2555	98.205
5.10000	9.29948	0.3911	0.0000	1.8457	919.2140	98.301
5.20000	8.47718	0.3904	0.0000	1.8464	920.1124	98.390
5.30000	8.10548	0.3907	0.0000	1.8475	920.9511	98.474
5.40000	7.57984	0.3901	0.0000	1.8460	921.7350	98.552
5.50000	7.09595	0.3885	0.0000	1.8407	922.4684	98.625
5.60000	6.66984	0.3880	0.0000	1.8424	923.1554	98.693
5.70000	6.29181	0.3875	0.0000	1.8452	923.7896	98.757
5.80000	5.95749	0.3870	0.0000	1.8470	924.4041	98.817
5.90000	5.50584	0.3864	0.0000	1.8400	924.9721	98.873
6.00000	5.17959	0.3842	0.0000	1.8441	925.5041	98.924
6.10000	4.87721	0.3858	0.0000	1.8474	926.0048	98.974
6.20000	4.59649	0.3855	0.0000	1.8413	926.4823	99.023
6.30000	4.33642	0.3852	0.0000	1.8452	926.9247	99.068
6.40000	4.09291	0.3840	0.0000	1.8493	927.3300	99.110
6.50000	3.86691	0.3844	0.0000	1.8434	927.7479	99.149
6.60000	3.65624	0.3844	0.0000	1.8421	928.1219	99.187
6.70000	3.45971	0.3841	0.0000	1.8428	928.4766	99.222
6.80000	3.27618	0.3839	0.0000	1.8414	928.8143	99.255
6.90000	3.10444	0.3837	0.0000	1.8424	929.1352	99.287

7.00000	2.94403	0.3835	0.0000	1.8474	929.4374	99.317
7.10000	2.79372	0.3831	0.0000	1.8431	929.7244	99.346
7.20000	2.65784	0.3832	0.0000	1.8485	929.9646	99.373
7.30000	2.52673	0.3831	0.0000	1.8441	1000.2542	99.398
7.40000	2.39672	0.3820	0.0000	1.8448	1000.5010	99.423
7.50000	2.28022	0.3827	0.0000	1.8454	1000.7344	99.446
7.60000	2.17049	0.3824	0.0000	1.8414	1000.9573	99.468
7.70000	2.06745	0.3824	0.0000	1.8477	1001.1692	99.489
7.80000	1.97044	0.3824	0.0000	1.8458	1001.3710	99.509
7.90000	1.87924	0.3821	0.0000	1.8401	1001.5635	99.528
8.00000	1.79306	0.3821	0.0000	1.8465	1001.7471	99.547
8.10000	1.71174	0.3821	0.0000	1.8420	1001.9223	99.564
8.20000	1.63511	0.3820	0.0000	1.8495	1002.0896	99.581
8.30000	1.56250	0.3819	0.0000	1.8461	1002.2494	99.597
8.40000	1.49396	0.3818	0.0000	1.8429	1002.4022	99.612
8.50000	1.42911	0.3817	0.0000	1.8497	1002.5483	99.626
8.60000	1.36777	0.3818	0.0000	1.8466	1002.6841	99.640
8.70000	1.30967	0.3814	0.0000	1.8435	1002.8220	99.653
8.80000	1.25481	0.3815	0.0000	1.8404	1002.9502	99.666
8.90000	1.20241	0.3814	0.0000	1.8477	1003.0730	99.678
9.00000	1.15244	0.3814	0.0000	1.8449	1003.1907	99.690
9.10000	1.10509	0.3813	0.0000	1.8421	1003.3037	99.701
9.20000	1.06127	0.3813	0.0000	1.8474	1003.4120	99.712
9.30000	1.01885	0.3812	0.0000	1.8424	1003.5140	99.722
9.40000	0.97855	0.3812	0.0000	1.8492	1003.6158	99.732
9.50000	0.94021	0.3811	0.0000	1.8417	1003.7118	99.747
9.60000	0.90371	0.3811	0.0000	1.8493	1003.8039	99.751
9.70000	0.86899	0.3810	0.0000	1.8469	1003.8926	99.760
9.80000	0.83591	0.3810	0.0000	1.8445	1003.9776	99.768
9.90000	0.80434	0.3810	0.0000	1.8422	1004.0598	99.774
10.00000	0.77431	0.3809	0.0000	1.8400	1004.1387	99.784
10.10000	0.74584	0.3809	0.0000	1.8478	1004.2147	99.792
10.20000	0.71831	0.3809	0.0000	1.8456	1004.2879	99.799
10.30000	0.69220	0.3808	0.0000	1.8435	1004.3584	99.808
10.40000	0.66724	0.3808	0.0000	1.8414	1004.4264	99.813
10.50000	0.64343	0.3808	0.0000	1.8494	1004.4919	99.819
10.60000	0.62064	0.3807	0.0000	1.8474	1004.5551	99.824
10.70000	0.59884	0.3807	0.0000	1.8454	1004.6161	99.832
10.80000	0.57804	0.3807	0.0000	1.8435	1004.6749	99.838
10.90000	0.55812	0.3807	0.0000	1.8417	1004.7317	99.843
11.00000	0.53904	0.3806	0.0000	1.8498	1004.7846	99.849
11.10000	0.52077	0.3806	0.0000	1.8480	1004.8395	99.854
11.20000	0.50326	0.3806	0.0000	1.8462	1004.8967	99.859
11.30000	0.48644	0.3806	0.0000	1.8444	1004.9472	99.864
11.40000	0.47039	0.3806	0.0000	1.8424	1004.9981	99.869
11.50000	0.45497	0.3805	0.0000	1.8411	1005.0433	99.873
11.60000	0.44017	0.3805	0.0000	1.8495	1005.0791	99.878
11.70000	0.42594	0.3805	0.0000	1.8479	1005.1224	99.882
11.80000	0.41211	0.3805	0.0000	1.8463	1005.1643	99.886
11.90000	0.39923	0.3805	0.0000	1.8447	1005.2049	99.890
12.00000	0.38645	0.3805	0.0000	1.8432	1005.2442	99.894

VISIBILITY AND EFFECT OF A FOR PLASMA RADIATION, MECHANICS DIVISION, UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3700.0  
DEGREES FAHRENHEIT = 6700.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRONS IS 101.95 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 18747.31 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/2) OF TOTAL VISIBLE FLUX IS 14994.37 CAND/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.211.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 210.747 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 44.314 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER IS 0.4762 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.4970 MICRONS.  
[I.E. THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.]

THE TOTAL POWER RADIATED IS 1142.59 WATT/CM<sup>2</sup> OR 1.142590E+01 WATT/SEC/CM<sup>2</sup> OR 2.55700E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 140.44 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS COLUMN IS THE PRODUCT, LUMENS PER WATT PER UNIT EMITTANCE X VISIBILITY FACTOR, WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE CAN BE CALCULATED USING THE TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = 0.0001.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 1024.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3700.0  
DEGREES FAHRENHEIT = 6700.9

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER WATT/CM <sup>2</sup> PER MICRON	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE DEGREES K FOR PEAK	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	114.74914	0.1147	0.0000	11,114	4.4074	0.419
0.35500	114.29247	0.1143	0.0000	11,2514	5.0749	0.471
0.36000	113.83580	0.1139	0.0000	11,3884	5.6111	0.524
0.36500	113.37913	0.1135	0.0000	11,5254	6.2691	0.580
0.37000	112.92246	0.1131	0.0000	11,6624	6.9740	0.657
0.37500	112.46579	0.1127	0.0000	11,7994	7.7426	0.729
0.38000	112.00912	0.1123	0.0000	11,9364	8.5443	0.804
0.38500	111.55245	0.1119	0.0000	12,0734	9.4443	0.889
0.39000	111.09578	0.1115	0.0000	12,2104	10.3843	0.977
0.39500	110.63911	0.1111	0.0000	12,3474	11.3844	1.079
0.40000	110.18244	0.1107	0.0000	12,4844	12.4423	1.172
0.40500	109.72577	0.1103	0.0000	12,6214	13.5423	1.274
0.41000	109.26910	0.1099	0.0000	12,7584	14.6423	1.391
0.41500	108.81243	0.1095	0.0000	12,8954	15.7423	1.510
0.42000	108.35576	0.1091	0.0000	13,0324	16.8423	1.635
0.42500	107.89909	0.1087	0.0000	13,1694	17.9423	1.767
0.43000	107.44242	0.1083	0.0000	13,3064	19.0423	1.904
0.43500	106.98575	0.1079	0.0000	13,4434	20.1423	2.058
0.44000	106.52908	0.1075	0.0000	13,5804	21.2423	2.202
0.44500	106.07241	0.1071	0.0000	13,7174	22.3423	2.361
0.45000	105.61574	0.1067	0.0000	13,8544	23.4423	2.524
0.45500	105.15907	0.1063	0.0000	13,9914	24.5423	2.699
0.46000	104.70240	0.1059	0.0000	14,1284	25.6423	2.878
0.46500	104.24573	0.1055	0.0000	14,2654	26.7423	3.064
0.47000	103.78906	0.1051	0.0000	14,4024	27.8423	3.254
0.47500	103.33239	0.1047	0.0000	14,5394	28.9423	3.454
0.48000	102.87572	0.1043	0.0000	14,6764	30.0423	3.662
0.48500	102.41905	0.1039	0.0000	14,8134	31.1423	3.879
0.49000	101.96238	0.1035	0.0000	14,9504	32.2423	4.094
0.49500	101.50571	0.1031	0.0000	15,0874	33.3423	4.322
0.50000	101.04904	0.1027	0.0000	15,2244	34.4423	4.554
0.50500	100.59237	0.1023	0.0000	15,3614	35.5423	4.794
0.51000	100.13570	0.1019	0.0000	15,4984	36.6423	5.041
0.51500	99.67903	0.1015	0.0000	15,6354	37.7423	5.294
0.52000	99.22236	0.1011	0.0000	15,7724	38.8423	5.543
0.52500	98.76569	0.1007	0.0000	15,9094	39.9423	5.819
0.53000	98.30902	0.1003	0.0000	16,0464	41.0423	6.090
0.53500	97.85235	0.1000	0.0000	16,1834	42.1423	6.368
0.54000	97.39568	0.0996	0.0000	16,3204	43.2423	6.651
0.54500	96.93901	0.0992	0.0000	16,4574	44.3423	6.941
0.55000	96.48234	0.0988	0.0000	16,5944	45.4423	7.238
0.55500	96.02567	0.0984	0.0000	16,7314	46.5423	7.537
0.56000	95.56900	0.0980	0.0000	16,8684	47.6423	7.843
0.56500	95.11233	0.0976	0.0000	17,0054	48.7423	8.154
0.57000	94.65566	0.0972	0.0000	17,1424	49.8423	8.471



0.57500	689,65149	0.7725	429101,4036	6.7623	93,4372	8.793
0.58000	700,12201	0.7842	414192,1839	6.7114	96,9118	9.120
0.58500	710,30922	0.7956	394619,3881	6.6545	100,4380	9.459
0.59000	720,21034	0.8067	370735,4766	6.5986	104,0148	9.789
0.59500	729,82980	0.8175	344914,2554	6.5437	107,6396	10.130
0.60000	739,14457	0.8279	317152,1765	6.4897	111,3171	10.474
0.60500	748,17392	0.8380	288665,9354	6.4366	115,0305	10.825
0.61000	756,90992	0.8478	258693,4663	6.3844	118,7833	11.180
0.61500	765,35184	0.8572	229513,7222	6.3331	122,5901	11.538
0.62000	773,49961	0.8664	200398,2741	6.2826	126,4464	11.900
0.62500	781,35330	0.8752	170553,7944	6.2329	130,3516	12.266
0.63000	789,91354	0.8836	142142,2743	6.1841	134,2994	12.639
0.63500	798,18134	0.8918	117488,5208	6.1360	138,2722	13.008
0.64000	803,15794	0.8998	95575,7099	6.0884	142,2707	13.384
0.64500	809,84504	0.9071	75995,8619	6.0422	146,2933	13.764
0.65000	816,24457	0.9141	59385,9548	6.0964	150,3417	14.148
0.65500	822,35864	0.9211	45295,5141	6.0514	154,4153	14.539
0.66000	828,18949	0.9276	34553,3167	6.0070	158,5148	14.920
0.66500	833,74093	0.9338	25517,4724	5.9633	162,6397	15.311
0.67000	839,01874	0.9398	18256,9609	5.9203	166,7897	15.705
0.67500	844,01451	0.9454	13200,1970	5.8780	171,0644	16.101
0.68000	848,74359	0.9507	9811,4759	5.8362	175,3644	16.499
0.68500	853,20559	0.9557	6904,1349	5.7952	179,5734	16.900
0.69000	857,40394	0.9604	4780,8845	5.7547	183,7900	17.302
0.69500	861,34280	0.9648	3338,5447	5.7149	188,1470	17.704
0.70000	865,07601	0.9689	2411,4925	5.6754	192,4430	18.113
0.70500	868,49764	0.9727	1712,5985	5.6370	196,7968	18.529
0.71000	871,64203	0.9763	1244,7048	5.5990	201,1472	18.939
0.71500	874,54134	0.9798	892,0754	5.5613	205,5128	19.341
0.72000	877,24601	0.9834	654,2799	5.5243	209,8924	19.753
0.72500	879,75444	0.9864	414,7631	5.4878	214,2853	20.166
0.73000	881,99324	0.9890	229,8777	5.4514	218,6897	20.581
0.73500	884,00696	0.9912	210,4499	5.4144	223,1044	20.998
0.74000	885,80015	0.9932	140,7032	5.3784	227,5294	21.413
0.74500	887,37747	0.9955	120,4913	5.3420	231,9629	21.830
0.75000	888,74359	0.9975	40,4366	5.3050	236,4028	22.248
0.75500	890,46092	0.9993	0.0000	5.2685	240,8494	22.668
0.76000	892,18945	0.9998	0.0000	5.2324	245,3014	23.089
0.76500	892,74743	1.0000	0.0000	5.1964	249,7594	23.504
0.77000	892,43152	0.9999	0.0000	5.1604	254,2234	23.924
0.77500	891,41827	0.9998	0.0000	5.1244	258,6924	24.344
0.78000	890,36410	0.9997	0.0000	5.0884	263,1664	24.764
0.78500	888,30445	0.9995	0.0000	5.0524	267,6464	25.184
0.79000	885,47423	0.9992	0.0000	5.0164	272,1314	25.604
0.79500	882,50712	0.9984	0.0000	4.9804	276,6164	26.024
0.80000	878,43694	0.9977	0.0000	4.9444	281,1064	26.444
0.80500	874,49305	0.9966	0.0000	4.9084	285,5964	26.864
0.81000	870,10889	0.9950	0.0000	4.8724	290,0864	27.284
0.81500	865,11342	0.9930	0.0000	4.8364	294,5764	27.704
0.82000	859,73534	0.9910	0.0000	4.7994	299,0664	28.124
0.82500	854,00232	0.9895	0.0000	4.7634	303,5564	28.544
0.83000	847,94022	0.9878	0.0000	4.7274	308,0464	28.964
0.83500	841,57444	0.9858	0.0000	4.6914	312,5364	29.384
0.84000	834,93323	0.9832	0.0000	4.6554	317,0264	29.804
0.84500	828,14651	0.9805	0.0000	4.6194	321,5164	30.224
0.85000				4.5834	326,0064	30.644
0.85500				4.5474	330,4964	31.064
0.86000				4.5114	334,9864	31.484
0.86500				4.4754	339,4764	31.904
0.87000				4.4394	343,9664	32.324
0.87500				4.4034	348,4564	32.744
0.88000				4.3674	352,9464	33.164
0.88500				4.3314	357,4364	33.584
0.89000				4.2954	361,9264	34.004
0.89500				4.2594	366,4164	34.424
0.90000				4.2234	370,9064	34.844
0.90500				4.1874	375,3964	35.264
0.91000				4.1514	379,8864	35.684
0.91500				4.1154	384,3764	36.104
0.92000				4.0794	388,8664	36.524
0.92500				4.0434	393,3564	36.944
0.93000				4.0074	397,8464	37.364
0.93500				3.9714	402,3364	37.784
0.94000				3.9354	406,8264	38.204
0.94500				3.8994	411,3164	38.624
0.95000				3.8634	415,8064	39.044
0.95500				3.8274	420,2964	39.464
0.96000				3.7914	424,7864	39.884
0.96500				3.7554	429,2764	40.304
0.97000				3.7194	433,7664	40.724
0.97500				3.6834	438,2564	41.144
0.98000				3.6474	442,7464	41.564
0.98500				3.6114	447,2364	41.984
0.99000				3.5754	451,7264	42.404
0.99500				3.5394	456,2164	42.824
1.00000				3.5034	460,7064	43.244
1.00500				3.4674	465,1964	43.664
1.01000				3.4314	469,6864	44.084
1.01500				3.3954	474,1764	44.504
1.02000				3.3594	478,6664	44.924
1.02500				3.3234	483,1564	45.344
1.03000				3.2874	487,6464	45.764
1.03500				3.2514	492,1364	46.184
1.04000				3.2154	496,6264	46.604
1.04500				3.1794	501,1164	47.024
1.05000				3.1434	505,6064	47.444
1.05500				3.1074	510,0964	47.864
1.06000				3.0714	514,5864	48.284
1.06500				3.0354	519,0764	48.704
1.07000				3.0000	523,5664	49.124
1.07500				2.9644	528,0564	49.544
1.08000				2.9284	532,5464	49.964
1.08500				2.8924	537,0364	50.384
1.09000				2.8564	541,5264	50.804
1.09500				2.8204	546,0164	51.224
1.10000				2.7844	550,5064	51.644
1.10500				2.7484	554,9964	52.064
1.11000				2.7124	559,4864	52.484
1.11500				2.6764	563,9764	52.904
1.12000				2.6404	568,4664	53.324
1.12500				2.6044	572,9564	53.744
1.13000				2.5684	577,4464	54.164
1.13500				2.5324	581,9364	54.584
1.14000				2.4964	586,4264	55.004
1.14500				2.4604	590,9164	55.424
1.15000				2.4244	595,4064	55.844
1.15500				2.3884	599,8964	56.264
1.16000				2.3524	604,3864	56.684
1.16500				2.3164	608,8764	57.104
1.17000				2.2804	613,3664	57.524
1.17500				2.2444	617,8564	57.944
1.18000				2.2084	622,3464	58.364
1.18500				2.1724	626,8364	58.784
1.19000				2.1364	631,3264	59.204
1.19500				2.1004	635,8164	59.624
1.20000				2.0644	640,3064	60.044
1.20500				2.0284	644,7964	60.464
1.21000				2.0000	649,2864	60.884
1.21500				1.9644	653,7764	61.304
1.22000				1.9284	658,2664	61.724
1.22500				1.8924	662,7564	62.144
1.23000				1.8564	667,2464	62.564
1.23500				1.8204	671,7364	62.984
1.24000				1.7844	676,2264	63.404
1.24500				1.7484	680,7164	63.824
1.25000				1.7124	685,2064	64.244
1.25500				1.6764	689,6964	64.664
1.26000				1.6404	694,1864	65.084
1.26500				1.6044	698,6764	65.504
1.27000				1.5684	703,1664	65.924
1.27500				1.5324	707,6564	66.344
1.28000				1.4964	712,1464	66.764
1.28500				1.4604	716,6364	67.184
1.29000				1.4244	721,1264	67.604
1.29500				1.3884	725,6164	68.024
1.30000				1.3524	730,1064	68.444
1.30500				1.3164	734,5964	68.864
1.31000				1.2804	739,0864	69.284
1.31500				1.2444	743,5764	69.704
1.32000				1.2084	748,0664	70.124
1.32500				1.1724	752,5564	70.544
1.33000				1.1364	757,0464	70.964
1.33500				1.1004	761,5364	71.384
1.34000				1.0644	766,0264	71.804
1.34500				1.0284	770,5164	72.224
1.35000				1.0000	775,0064	72.644
1.35500				0.9644	779,4964	73.064
1.36000				0.9284	783,9864	73.484
1.36500				0.8924	788,4764	73.904
1.37000				0.8564	792,9664	74.324
1.37500				0.8204	797,4564	74.744
1.38000				0.7844	801,9464	75.164
1.38500				0.7484	806,4364	75.584
1.39000				0.7124	810,9264	76.004
1.39500				0.6764	815,4164	76.424
1.40000				0.6404	819,9064	76.844
1.40500				0.6044	824,3964	77.264
1.41000				0.5684	828,8864	77.684
1.41500				0.5324	833,3764	78.104
1.42000				0.4964	837,8664	78.524
1.42500						

1.90000	184,44521	0.4444	0.0000	2.8017	744,0484	69.649
1.60000	184,40157	0.1854	0.0000	2.4444	777,1708	73.139
1.70000	207,84207	0.3314	0.0000	2.4444	844,2274	76.155
1.80000	258,07834	0.2891	0.0000	2.4444	844,9454	74.744
1.90000	224,17449	0.2511	0.0000	2.1444	841,0314	81.031
2.00000	194,77089	0.2147	0.0000	2.1444	841,9674	83.001
2.10000	170,40102	0.1911	0.0000	2.1444	940,2247	84.720
2.20000	149,51741	0.1675	0.0000	2.1112	914,2071	86.224
2.30000	131,41930	0.1472	0.0000	2.0727	910,2117	87.548
2.40000	115,91074	0.1294	0.0000	2.0144	942,5707	88.708
2.50000	102,53085	0.1144	0.0000	1.7714	943,4444	89.732
2.60000	90,96422	0.1019	0.0000	1.9274	943,1444	90.641
2.70000	80,94594	0.0907	0.0000	1.8471	971,7301	91.448
2.80000	72,73264	0.0809	0.0000	1.8500	974,1747	92.168
2.90000	66,41840	0.0724	0.0000	1.8154	946,2140	92.612
3.00000	57,94940	0.0650	0.0000	1.7847	992,1179	93.384
3.10000	52,14077	0.0584	0.0000	1.7544	997,4301	93.904
3.20000	47,01147	0.0527	0.0000	1.7274	1002,7014	94.372
3.30000	42,51137	0.4716	0.0000	1.7021	1007,2440	94.791
3.40000	38,51174	0.0441	0.0000	1.6784	1011,3131	95.174
3.50000	34,94527	0.0372	0.0000	1.6542	1014,9414	95.519
3.60000	31,91247	0.0354	0.0000	1.6311	1018,3192	95.831
3.70000	29,00311	0.0324	0.0000	1.6157	1021,3571	96.119
3.80000	26,44341	0.0297	0.0000	1.5971	1024,1294	96.380
3.90000	24,24503	0.0272	0.0000	1.5749	1026,4444	96.619
4.00000	22,21109	0.0249	0.0000	1.5444	1028,9449	96.837
4.10000	20,41851	0.0220	0.0000	1.5144	1031,1174	97.034
4.20000	18,74514	0.0210	0.0000	1.4812	1031,0746	97.222
4.30000	17,11095	0.0194	0.0000	1.4514	1034,4447	97.392
4.40000	15,57724	0.0179	0.0000	1.4240	1046,5415	97.544
4.50000	14,74442	0.0165	0.0000	1.4044	1046,0794	97.683
4.60000	13,47114	0.0151	0.0000	1.3814	1049,5009	97.827
4.70000	12,47342	0.0142	0.0000	1.3600	1040,4174	97.951
4.80000	11,74431	0.0132	0.0000	1.3441	1042,0344	98.066
4.90000	10,94443	0.0122	0.0000	1.3444	1043,1729	98.172
5.00000	10,17474	0.0114	0.0000	1.3447	1044,2279	98.279
5.10000	9,44244	0.0106	0.0000	1.3441	1045,2104	98.364
5.20000	8,44441	0.0099	0.0000	1.3440	1046,1244	98.456
5.30000	8,24291	0.0091	0.0000	1.3412	1046,9415	98.531
5.40000	7,74422	0.0087	0.0000	1.3404	1047,7444	98.606
5.50000	7,21214	0.0081	0.0000	1.3447	1048,5242	98.676
5.60000	6,77441	0.0074	0.0000	1.3477	1049,2241	98.742
5.70000	6,34440	0.0071	0.0000	1.3474	1049,4447	98.804
5.80000	5,94431	0.0067	0.0000	1.3473	1050,5007	98.862
5.90000	5,47911	0.0061	0.0000	1.3454	1051,0793	98.916
6.00000	5,27442	0.0054	0.0000	1.3447	1051,4234	98.968
6.10000	4,94794	0.0056	0.0000	1.3421	1052,1354	99.018
6.20000	4,44142	0.0052	0.0000	1.3441	1052,6177	99.061
6.30000	4,15555	0.0048	0.0000	1.3401	1053,0724	99.104
6.40000	4,14815	0.0047	0.0000	1.3441	1053,5014	99.144
6.50000	3,97340	0.0044	0.0000	1.3447	1053,9046	99.183
6.60000	3,72241	0.0042	0.0000	1.3431	1054,2894	99.219
6.70000	3,52242	0.0039	0.0000	1.3440	1054,4516	99.253
6.80000	3,31510	0.0037	0.0000	1.3440	1054,9944	99.285
6.90000	3,14240	0.0035	0.0000	1.3440	1055,3191	99.315

7.00000	2,72474	0.0034	0.0000	1.3431	1055,4249	99.344
7.10000	2,44141	0.0032	0.0000	1.3447	1055,9148	99.372
7.20000	2,20004	0.0031	0.0000	1.3442	1056,1959	99.398
7.30000	2,04444	0.0029	0.0000	1.3444	1056,4591	99.423
7.40000	2,43014	0.0027	0.0000	1.3444	1056,7093	99.446
7.50000	2,12014	0.0026	0.0000	1.3414	1056,9472	99.469
7.60000	2,20441	0.0025	0.0000	1.3475	1057,1736	99.490
7.70000	2,10144	0.0024	0.0000	1.3474	1057,3447	99.510
7.80000	2,04501	0.0022	0.0000	1.3444	1057,5946	99.530
7.90000	1,91104	0.0021	0.0000	1.3447	1057,7904	99.548
8.00000	1,42414	0.0020	0.0000	1.3424	1057,9771	99.566
8.10000	1,74114	0.0020	0.0000	1.3441	1058,1554	99.582
8.20000	1,44142	0.0019	0.0000	1.3457	1058,3256	99.598
8.30000	1,44014	0.0018	0.0000	1.3424	1058,4442	99.614
8.40000	1,44014	0.0018	0.0000	1.3442	1058,6434	99.629
8.50000	1,44014	0.0017	0.0000	1.3441	1058,7922	99.644
8.60000	1,44340	0.0016	0.0000	1.3410	1058,9344	99.658
8.70000	1,10111	0.0016	0.0000	1.3400	1059,0705	99.664
8.80000	1,11104	0.0015	0.0000	1.3371	1059,2009	99.681
8.90000	1,27544	0.0014	0.0000	1.3343	1059,3246	99.693
9.00000	1,22247	0.0014	0.0000	1.3415	1059,4446	99.704
9.10000	1,17247	0.0013	0.0000	1.3444	1059,5604	99.715
9.20000	1,17447	0.0013	0.0000	1.3441	1059,6706	99.724
9.30000	1,07014	0.0012	0.0000	1.3424	1059,7741	99.735
9.40000	1,03440	0.0011	0.0000	1.3410	1059,8774	99.744
9.50000	0,94440	0.0011	0.0000	1.3404	1059,9753	99.754
9.60000	0,91442	0.0010	0.0000	1.3401	1060,0691	99.762
9.70000	0,94444	0.0010	0.0000	1.3414	1060,1592	99.771
9.80000	0,94444	0.0010	0.0000	1.3414	1060,2454	99.779
9.90000	0,94444	0.0010	0.0000	1.3402	1060,3292	99.787
10.00000	0,74717	0.0009	0.0000	1.3400	1060,4094	99.794
10.10000	0,75800	0.0008	0.0000	1.3404	1060,4867	99.802
10.20000	0,73014	0.0008	0.0000	1.3407	1060,5611	99.809
10.30000	0,70141	0.0008	0.0000	1.3404	1060,6377	99.818
10.40000	0,47424	0.0007	0.0000	1.3404	1060,7014	99.822
10.50000	0,44440	0.0007	0.0000	1.3404	1060,7644	99.824
10.60000	0,43044	0.0007	0.0000	1.3404	1060,8327	99.834
10.70000	0,47441	0.0007	0.0000	1.3404	1060,8946	99.840
10.80000	0,44751	0.0006	0.0000	1.3404	1060,9546	99.848
10.90000	0,44724	0.0006	0.0000	1.3404	1061,0122	99.851
11.00000	0,44741	0.0006	0.0000	1.3404	1061,0679	99.854
11.10000	0,44724	0.0006	0.0000	1.3404	1061,1218	99.869
11.20000	0,44744	0.0006	0.0000	1.3404	1061,1736	99.866
11.30000	0,44744	0.0006	0.0000	1.3404	1061,2241	99.871
11.40000	0,44744	0.0006	0.0000	1.3404	1061,2727	99.874
11.50000	0,44744	0.0006	0.0000	1.3404	1061,3197	99.880
11.60000	0,44744	0.0006	0.0000	1.3404	1061,3652	99.884
11.70000	0,44744	0.0006	0.0000	1.3404	1061,4092	99.889
11.80000	0,44744	0.0006	0.0000	1.3404	1061,4514	99.893
11.90000	0,44744	0.0006	0.0000	1.3404	1061,4930	99.894
12.00000	0,39247	0.0004	0.0000	1.3407	1061,5329	99.900

VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, U.S.T., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 3273.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3750.0  
DEGREES FAHRENHEIT = 6200.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 248.92 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 51433.17 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 16435.36 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.218 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 211.159 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 44.041 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7728 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.9739 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 1121.21 WATT/CM<sup>2</sup> OR 1.12121\*10<sup>10</sup> ERG/SEC/CM<sup>2</sup> OR 2.6747\*10<sup>10</sup> KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 954.78 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (W) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: W = M\*W/TOM.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 3273.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3750.0  
DEGREES FAHRENHEIT = 6200.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATTS	POWER FROM ZERO TO L	8 TOTAL POWER ZERO TO L
0.35000	123.80251	0.1297	0.0000	10.8802	5.2449	0.468
0.35500	134.57441	0.1410	0.0000	10.8759	5.8497	0.524
0.36000	145.40701	0.1527	0.0000	10.8714	6.5494	0.584
0.36500	157.47824	0.1649	0.0000	10.8669	7.3515	0.654
0.37000	169.57324	0.1774	0.0000	10.8624	8.1490	0.729
0.37500	182.07314	0.1907	0.0000	10.8579	9.0479	0.807
0.38000	194.95802	0.2042	0.0000	10.8534	9.9904	0.891
0.38500	208.20644	0.2181	0.0000	9.9481	10.9941	0.981
0.39000	221.79602	0.2323	0.0000	9.4384	12.0730	1.079
0.39500	235.70344	0.2469	0.0000	9.4384	13.2169	1.179
0.40000	249.90522	0.2617	47.9742	9.4384	14.4364	1.287
0.40500	264.37412	0.2769	143.8206	9.4384	15.7162	1.402
0.41000	279.00135	0.2923	227.7345	9.4384	17.0747	1.523
0.41500	294.02544	0.3080	439.4472	9.4384	18.5074	1.651
0.42000	309.15327	0.3238	840.8949	9.4384	20.0143	1.785
0.42500	324.44892	0.3399	1610.5645	9.4384	21.5993	1.924
0.43000	339.88004	0.3565	2681.0290	9.4384	23.2600	2.075
0.43500	355.44236	0.3723	4040.4735	9.4384	24.9943	2.230
0.44000	371.04945	0.3887	5803.8452	9.4384	26.8146	2.392
0.44500	386.80487	0.4051	7627.7921	9.4384	28.7093	2.561
0.45000	402.74327	0.4216	10402.2349	9.4384	30.6827	2.737
0.45500	418.84139	0.4382	13654.6628	9.4384	32.7350	2.920
0.46000	435.11814	0.4547	17711.9400	9.4384	34.8662	3.110
0.46500	451.66925	0.4712	22637.2105	9.4384	37.0741	3.307
0.47000	468.50491	0.4876	28409.2814	9.4384	39.3647	3.511
0.47500	485.72029	0.5040	34948.2142	9.4384	41.7317	3.722
0.48000	499.74519	0.5203	42952.3554	9.4384	44.1766	3.948
0.48500	512.18231	0.5364	52485.9914	9.4384	46.6989	4.185
0.49000	527.49319	0.5525	64408.6161	9.4384	49.2982	4.437
0.49500	542.86020	0.5686	78859.3063	9.4384	51.9736	4.694
0.50000	557.86644	0.5846	95920.0110	9.4384	54.7245	4.961
0.50500	572.49664	0.5996	115444.1710	9.4384	57.5500	5.233
0.51000	587.13527	0.6149	138444.6740	9.4384	60.4492	5.509
0.51500	601.56845	0.6301	164717.4593	9.4384	63.4210	5.794
0.52000	615.78301	0.6449	194300.0165	9.4384	66.4645	6.084
0.52500	629.74644	0.6596	228295.3687	9.4384	69.5774	6.379
0.53000	643.50794	0.6740	266701.1080	9.4384	72.7617	6.679
0.53500	656.99632	0.6881	309781.4374	9.4384	76.0131	6.984
0.54000	670.22203	0.7020	357568.6054	9.4384	79.3312	7.294
0.54500	683.17414	0.7155	409912.5444	9.4384	82.7148	7.608
0.55000	695.85064	0.7288	466801.9031	9.4384	86.1625	7.928
0.55500	708.23809	0.7418	528237.6024	9.4384	89.6729	8.254
0.56000	720.33194	0.7545	594381.1649	9.4384	93.2444	8.584
0.56500	732.12640	0.7668	665387.0350	9.4384	96.8757	8.919
0.57000	743.61624	0.7788		9.4384	100.5652	9.259

0.57500	754.1114	0.7905	848634.7942	4.4704	104.3113	9.303
0.58000	755.46524	0.7910	848647.5154	4.4727	104.1126	9.461
0.58500	756.21240	0.7915	848661.5413	4.4750	103.9174	9.619
0.59000	756.85105	0.7920	848675.5671	4.4773	103.7242	9.777
0.59500	757.38422	0.7925	848689.5930	4.4796	103.5310	9.935
0.60000	757.91739	0.7930	848703.6188	4.4819	103.3378	10.093
0.60500	758.45056	0.7935	848717.6447	4.4842	103.1446	10.251
0.61000	758.98373	0.7940	848731.6705	4.4865	102.9514	10.409
0.61500	759.51690	0.7945	848745.6964	4.4888	102.7582	10.567
0.62000	760.05007	0.7950	848759.7222	4.4911	102.5650	10.725
0.62500	760.58324	0.7955	848773.7481	4.4934	102.3718	10.883
0.63000	761.11641	0.7960	848787.7739	4.4957	102.1786	11.041
0.63500	761.64958	0.7965	848801.8000	4.4980	101.9854	11.199
0.64000	762.18275	0.7970	848815.8258	4.5003	101.7922	11.357
0.64500	762.71592	0.7975	848829.8517	4.5026	101.5990	11.515
0.65000	763.24909	0.7980	848843.8775	4.5049	101.4058	11.673
0.65500	763.78226	0.7985	848857.9034	4.5072	101.2126	11.831
0.66000	764.31543	0.7990	848871.9292	4.5095	101.0194	11.989
0.66500	764.84860	0.7995	848885.9551	4.5118	100.8262	12.147
0.67000	765.38177	0.8000	848899.9809	4.5141	100.6330	12.305
0.67500	765.91494	0.8005	848914.0068	4.5164	100.4398	12.463
0.68000	766.44811	0.8010	848928.0326	4.5187	100.2466	12.621
0.68500	766.98128	0.8015	848942.0585	4.5210	100.0534	12.779
0.69000	767.51445	0.8020	848956.0843	4.5233	99.8602	12.937
0.69500	768.04762	0.8025	848970.1102	4.5256	99.6670	13.095
0.70000	768.58079	0.8030	848984.1360	4.5279	99.4738	13.253
0.70500	769.11396	0.8035	848998.1619	4.5302	99.2806	13.411
0.71000	769.64713	0.8040	849012.1877	4.5325	99.0874	13.569
0.71500	770.18030	0.8045	849026.2136	4.5348	98.8942	13.727
0.72000	770.71347	0.8050	849040.2394	4.5371	98.7010	13.885
0.72500	771.24664	0.8055	849054.2653	4.5394	98.5078	14.043
0.73000	771.77981	0.8060	849068.2911	4.5417	98.3146	14.201
0.73500	772.31298	0.8065	849082.3170	4.5440	98.1214	14.359
0.74000	772.84615	0.8070	849096.3428	4.5463	97.9282	14.517
0.74500	773.37932	0.8075	849110.3687	4.5486	97.7350	14.675
0.75000	773.91249	0.8080	849124.3945	4.5509	97.5418	14.833
0.75500	774.44566	0.8085	849138.4204	4.5532	97.3486	14.991
0.76000	774.97883	0.8090	849152.4462	4.5555	97.1554	15.149
0.76500	775.51200	0.8095	849166.4721	4.5578	96.9622	15.307
0.77000	776.04517	0.8100	849180.4979	4.5601	96.7690	15.465
0.77500	776.57834	0.8105	849194.5238	4.5624	96.5758	15.623
0.78000	777.11151	0.8110	849208.5496	4.5647	96.3826	15.781
0.78500	777.64468	0.8115	849222.5755	4.5670	96.1894	15.939
0.79000	778.17785	0.8120	849236.6013	4.5693	95.9962	16.097
0.79500	778.71102	0.8125	849250.6272	4.5716	95.8030	16.255
0.80000	779.24419	0.8130	849264.6530	4.5739	95.6098	16.413
0.80500	779.77736	0.8135	849278.6789	4.5762	95.4166	16.571
0.81000	780.31053	0.8140	849292.7047	4.5785	95.2234	16.729
0.81500	780.84370	0.8145	849306.7306	4.5808	95.0302	16.887
0.82000	781.37687	0.8150	849320.7564	4.5831	94.8370	17.045
0.82500	781.91004	0.8155	849334.7823	4.5854	94.6438	17.203
0.83000	782.44321	0.8160	849348.8081	4.5877	94.4506	17.361
0.83500	782.97638	0.8165	849362.8340	4.5900	94.2574	17.519
0.84000	783.50955	0.8170	849376.8598	4.5923	94.0642	17.677
0.84500	784.04272	0.8175	849390.8857	4.5946	93.8710	17.835
0.85000	784.57589	0.8180	849404.9115	4.5969	93.6778	17.993
0.85500	785.10906	0.8185	849418.9374	4.5992	93.4846	18.151
0.86000	785.64223	0.8190	849432.9632	4.6015	93.2914	18.309
0.86500	786.17540	0.8195	849446.9891	4.6038	93.0982	18.467
0.87000	786.70857	0.8200	849461.0149	4.6061	92.9050	18.625
0.87500	787.24174	0.8205	849475.0408	4.6084	92.7118	18.783
0.88000	787.77491	0.8210	849489.0666	4.6107	92.5186	18.941
0.88500	788.30808	0.8215	849503.0925	4.6130	92.3254	19.099
0.89000	788.84125	0.8220	849517.1183	4.6153	92.1322	19.257
0.89500	789.37442	0.8225	849531.1442	4.6176	91.9390	19.415
0.90000	789.90759	0.8230	849545.1700	4.6199	91.7458	19.573
0.90500	790.44076	0.8235	849559.1959	4.6222	91.5526	19.731
0.91000	790.97393	0.8240	849573.2217	4.6245	91.3594	19.889
0.91500	791.50710	0.8245	849587.2476	4.6268	91.1662	20.047
0.92000	792.04027	0.8250	849601.2734	4.6291	90.9730	20.205
0.92500	792.57344	0.8255	849615.2993	4.6314	90.7798	20.363
0.93000	793.10661	0.8260	849629.3251	4.6337	90.5866	20.521
0.93500	793.63978	0.8265	849643.3510	4.6360	90.3934	20.679
0.94000	794.17295	0.8270	849657.3768	4.6383	90.2002	20.837
0.94500	794.70612	0.8275	849671.4027	4.6406	90.0070	20.995
0.95000	795.23929	0.8280	849685.4285	4.6429	89.8138	21.153
0.95500	795.77246	0.8285	849699.4544	4.6452	89.6206	21.311
0.96000	796.30563	0.8290	849713.4802	4.6475	89.4274	21.469
0.96500	796.83880	0.8295	849727.5061	4.6498	89.2342	21.627
0.97000	797.37197	0.8300	849741.5319	4.6521	89.0410	21.785
0.97500	797.90514	0.8305	849755.5578	4.6544	88.8478	21.943
0.98000	798.43831	0.8310	849769.5836	4.6567	88.6546	22.101
0.98500	798.97148	0.8315	849783.6095	4.6590	88.4614	22.259
0.99000	799.50465	0.8320	849797.6353	4.6613	88.2682	22.417
0.99500	800.03782	0.8325	849811.6612	4.6636	88.0750	22.575
1.00000	800.57099	0.8330	849825.6870	4.6659	87.8818	22.733

0.99500	800.57099	0.8330	849825.6870	4.6659	87.8818	22.733
0.99000	800.03782	0.8325	849811.6612	4.6636	87.6886	22.891
0.98500	799.50465	0.8320	849797.6353	4.6613	87.4954	23.049
0.98000	798.97148	0.8315	849783.6095	4.6590	87.3022	23.207
0.97500	798.43831	0.8310	849769.5836	4.6567	87.1090	23.365
0.97000	797.90514	0.8305	849755.5578	4.6544	86.9158	23.523
0.96500	797.37197	0.8300	849741.5319	4.6521	86.7226	23.681
0.96000	796.83880	0.8295	849727.5061	4.6498	86.5294	23.839
0.95500	796.30563	0.8290	849713.4802	4.6475	86.3362	23.997
0.95000	795.77246	0.8285	849699.4544	4.6452	86.1430	24.155
0.94500	795.23929	0.8280	849685.4285	4.6429	85.9498	24.313
0.94000	794.70612	0.8275	849671.4027	4.6406	85.7566	24.471
0.93500	794.17295	0.8270	849657.3768	4.6383	85.5634	24.629
0.93000	793.63978	0.8265	849643.3510	4.6360	85.3702	24.787
0.92500	793.10661	0.8260	849629.3251	4.6337	85.1770	24.945
0.92000	792.57344	0.8255	849615.2993	4.6314	84.9838	25.103
0.91500	792.04027	0.8250	849601.2734	4.6291	84.7906	25.261
0.91000	791.50710	0.8245	849587.2476	4.6268	84.5974	25.419
0.90500	790.97393	0.8240	849573.2217	4.6245	84.4042	25.577
0.90000	790.44076	0.8235	849559.1959	4.6222	84.2110	25.735
0.89500	789.90759	0.8230	849545.1700	4.6199	84.0178	25.893
0.89000	789.37442	0.8225	849531.1442	4.6176	83.8246	26.051
0.88500	788.84125	0.8220	849517.1183	4.6153	83.6314	26.209
0.88000	788.30808	0.8215	849503.0925	4.6130	83.4382	26.367
0.87500	787.77491	0.8210	849489.0666	4.6107	83.2450	26.525
0.87000	787.24174	0.8205	849475.0408	4.6084	83.0518	26.683
0.86500	786.70857	0.8200	849461.0149	4.6061	82.8586	26.841
0.86000	786.17540	0.8195	849446.9891	4.6038	82.6654	26.999
0.85500	785.64223	0.8190	849432.9632	4.6015	82.4722	27.157
0.85000	785.10906	0.8185	849418.9374	4.5992	82.2790	27.315
0.84500	784.57589	0.8180	849404.9115	4.5969	82.0858	27.473
0.84000	784.04272	0.8175	849390.8857	4.5946	81.8926	27.631
0.83500	783.50955	0.8170	849376.8598	4.5923	81.6994	27.789
0.83000	782.97638	0.8165	849362.8340	4.5900	81.5062	27.947
0.82500	782.44321	0.8160	849348.8081	4.5877	81.3130	28.105
0.82000	781.91004	0.8155	849334.7823	4.5854	81.1198	28.263
0.81500	781.37687	0.8150	849320.7564	4.5831	80.9266	28.421
0.81000	780.84370	0.8145	849306.7306	4.5808	80.7334	28.579
0.80500	780.31053	0.8140	849292.7047	4.5785	80.5402	28.737
0.80000	779.77736	0.8135	849278.6789	4.5762	80.3470	28.895
0.79500	779.24419	0.8130	849264.6530	4.5739	80.1538	29.053
0.79000	778.71102	0.8125	849250.6272	4.5716	79.9606	29.211
0.78500	778.17785	0.8120	849236.6013	4.5693	79.7674	29.369
0.78000	777.64468	0.8115	849222.5755	4.5670	79.5742	29.527
0.77500	777.11151	0.8110	849208.5496	4.5647	79.3810	29.685
0.77000	776.57834	0.8105	849194.5238	4.5624	79.1878	29.843
0.76500	776.04517	0.8100	849180.4979	4.5601	78.9946	29.999
0.76000	775.51200	0.8095	849166.			

1.50000	413.46195	0.4335	0.0000	2.7722	789.3062	70.384
1.60000	156.87702	0.3738	0.0000	2.8374	827.7730	71.829
1.70000	108.14361	0.3227	0.0000	2.8908	860.9594	73.789
1.80000	268.81481	0.2793	0.0000	2.9407	888.8825	75.187
1.90000	231.32484	0.2423	0.0000	2.9881	918.4929	81.589
2.00000	201.28114	0.2108	0.0000	3.0331	936.0829	83.489
2.10000	175.68459	0.1840	0.0000	3.0771	954.8972	85.187
2.20000	151.83290	0.1611	0.0000	3.1132	971.3445	86.634
2.30000	135.13199	0.1415	0.0000	3.1534	985.7687	87.920
2.40000	119.04312	0.1247	0.0000	3.1898	998.4592	89.052
2.50000	105.26943	0.1131	0.0000	3.2261	1009.4598	90.051
2.60000	93.36324	0.0974	0.0000	3.2612	1019.5740	90.936
2.70000	83.01479	0.0869	0.0000	3.2932	1028.3816	91.721
2.80000	74.04223	0.0775	0.0000	3.3267	1036.2281	92.421
2.90000	66.22167	0.0694	0.0000	3.3591	1043.2285	93.085
3.00000	59.39009	0.0622	0.0000	3.3923	1049.5016	93.605
3.10000	53.59974	0.0559	0.0000	3.4232	1055.1346	94.167
3.20000	48.13345	0.0504	0.0000	3.4534	1060.2047	94.559
3.30000	43.49049	0.0454	0.0000	3.4818	1064.7821	94.968
3.40000	39.38652	0.0411	0.0000	3.5090	1068.9218	95.337
3.50000	35.74987	0.0374	0.0000	3.5362	1072.6749	95.672
3.60000	32.51649	0.0341	0.0000	3.5627	1076.1940	95.976
3.70000	29.63714	0.0310	0.0000	3.5884	1079.1900	96.251
3.80000	27.06614	0.0283	0.0000	3.6142	1082.0227	96.505
3.90000	24.76917	0.0259	0.0000	3.6391	1084.6122	96.736
4.00000	22.70124	0.0238	0.0000	3.6635	1086.9817	96.948
4.10000	20.84607	0.0218	0.0000	3.6875	1089.1594	97.142
4.20000	19.17497	0.0201	0.0000	3.7112	1091.1590	97.320
4.30000	17.64664	0.0185	0.0000	3.7345	1092.9994	97.484
4.40000	16.30277	0.0171	0.0000	3.7575	1094.6972	97.634
4.50000	15.06692	0.0158	0.0000	3.7801	1096.2646	97.776
4.60000	13.94524	0.0146	0.0000	3.8022	1097.7183	97.905
4.70000	12.92534	0.0135	0.0000	3.8240	1099.0571	98.024
4.80000	11.99644	0.0126	0.0000	3.8452	1100.3024	98.136
4.90000	11.14904	0.0117	0.0000	3.8657	1101.4641	98.239
5.00000	10.37472	0.0109	0.0000	3.8852	1102.5437	98.335
5.10000	9.66812	0.0101	0.0000	3.9038	1103.5432	98.424
5.20000	9.01864	0.0094	0.0000	3.9218	1104.4699	98.507
5.30000	8.42042	0.0088	0.0000	3.9392	1105.3113	98.585
5.40000	7.87277	0.0082	0.0000	3.9560	1106.1556	98.658
5.50000	7.36854	0.0077	0.0000	3.9724	1106.9173	98.726
5.60000	6.90391	0.0072	0.0000	3.9883	1107.6936	98.789
5.70000	6.47516	0.0068	0.0000	3.9998	1108.4893	98.848
5.80000	6.07905	0.0064	0.0000	4.0109	1109.2988	98.905
5.90000	5.71265	0.0060	0.0000	4.0215	1109.9141	98.957
6.00000	5.37335	0.0056	0.0000	4.0315	1110.0702	99.007
6.10000	5.05874	0.0053	0.0000	4.0412	1110.4916	99.053
6.20000	4.76681	0.0050	0.0000	4.0501	1111.0827	99.097
6.30000	4.49554	0.0047	0.0000	4.0582	1111.5457	99.138
6.40000	4.24321	0.0044	0.0000	4.0654	1111.9824	99.177
6.50000	4.00843	0.0042	0.0000	4.0719	1112.3949	99.214
6.60000	3.78940	0.0040	0.0000	4.0784	1112.7846	99.249
6.70000	3.58514	0.0038	0.0000	4.0834	1113.1533	99.282
6.80000	3.39550	0.0036	0.0000	4.0874	1113.5021	99.313
6.90000	3.21622	0.0034	0.0000	4.0914	1113.8326	99.342

7.00000	3.04952	0.0032	0.0000	4.0949	1114.1458	99.370
7.10000	2.89351	0.0030	0.0000	4.0981	1114.4428	99.397
7.20000	2.74730	0.0029	0.0000	4.0999	1114.7288	99.429
7.30000	2.61014	0.0027	0.0000	4.1015	1114.9926	99.466
7.40000	2.48144	0.0026	0.0000	4.1028	1115.2471	99.498
7.50000	2.36054	0.0025	0.0000	4.1037	1115.4892	99.530
7.60000	2.24695	0.0024	0.0000	4.1043	1115.7195	99.567
7.70000	2.14007	0.0022	0.0000	4.1047	1115.9388	99.600
7.80000	2.03945	0.0021	0.0000	4.1049	1116.1477	99.629
7.90000	1.94444	0.0020	0.0000	4.1049	1116.3469	99.657
8.00000	1.85531	0.0019	0.0000	4.1048	1116.5368	99.684
8.10000	1.77112	0.0019	0.0000	4.1045	1116.7141	99.700
8.20000	1.69185	0.0018	0.0000	4.1040	1116.8812	99.717
8.30000	1.61630	0.0017	0.0000	4.1034	1117.0365	99.737
8.40000	1.54424	0.0016	0.0000	4.1027	1117.1803	99.757
8.50000	1.47604	0.0015	0.0000	4.1018	1117.3146	99.777
8.60000	1.41181	0.0015	0.0000	4.1008	1117.4397	99.797
8.70000	1.35131	0.0014	0.0000	4.0997	1117.5557	99.817
8.80000	1.29427	0.0014	0.0000	4.0985	1117.6627	99.837
8.90000	1.24120	0.0013	0.0000	4.0972	1117.7611	99.857
9.00000	1.19192	0.0012	0.0000	4.0958	1117.8503	99.877
9.10000	1.14534	0.0012	0.0000	4.0942	1117.9300	99.897
9.20000	1.09970	0.0011	0.0000	4.0925	1118.0016	99.917
9.30000	1.05512	0.0011	0.0000	4.0907	1118.0647	99.937
9.40000	1.01134	0.0011	0.0000	4.0888	1118.1194	99.957
9.50000	0.96814	0.0010	0.0000	4.0868	1118.1656	99.977
9.60000	0.92539	0.0010	0.0000	4.0847	1118.2034	99.997
9.70000	0.88397	0.0009	0.0000	4.0825	1118.2327	100.017
9.80000	0.84311	0.0009	0.0000	4.0802	1118.2534	100.037
9.90000	0.80281	0.0008	0.0000	4.0778	1118.2656	100.057
10.00000	0.76305	0.0008	0.0000	4.0753	1118.2694	100.077
10.10000	0.72384	0.0008	0.0000	4.0727	1118.2647	100.097
10.20000	0.68523	0.0007	0.0000	4.0700	1118.2514	100.117
10.30000	0.64723	0.0007	0.0000	4.0672	1118.2294	100.137
10.40000	0.61001	0.0007	0.0000	4.0643	1118.2087	100.157
10.50000	0.57365	0.0006	0.0000	4.0613	1118.1794	100.177
10.60000	0.53813	0.0006	0.0000	4.0582	1118.1416	100.197
10.70000	0.50345	0.0006	0.0000	4.0550	1118.0954	100.217
10.80000	0.46961	0.0005	0.0000	4.0517	1118.0407	100.237
10.90000	0.43661	0.0005	0.0000	4.0483	1117.9774	100.257
11.00000	0.40445	0.0005	0.0000	4.0448	1117.9057	100.277
11.10000	0.37312	0.0004	0.0000	4.0412	1117.8254	100.297
11.20000	0.34262	0.0004	0.0000	4.0375	1117.7364	100.317
11.30000	0.31294	0.0004	0.0000	4.0337	1117.6387	100.337
11.40000	0.28408	0.0004	0.0000	4.0298	1117.5324	100.357
11.50000	0.25604	0.0003	0.0000	4.0258	1117.4174	100.377
11.60000	0.22881	0.0003	0.0000	4.0217	1117.2937	100.397
11.70000	0.20239	0.0003	0.0000	4.0175	1117.1614	100.417
11.80000	0.17678	0.0003	0.0000	4.0132	1117.0204	100.437
11.90000	0.15198	0.0002	0.0000	4.0088	1116.8707	100.457
12.00000	0.12799	0.0002	0.0000	4.0043	1116.7124	100.477

VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, D.R.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 3576.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3800.0  
DEGREES FAHRENHEIT = 6380.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 246.43 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 56443.70 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 17970.34 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.225 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 212.001 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 47.774 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7424 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.7431 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 1142.21 WATT/CM<sup>2</sup> OR 1.14221E+10 ERG/SEC/CM<sup>2</sup> OR 2.40558E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1020.15 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT \* RADIANT EMITTANCE \* VISIBILITY FACTOR.  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (E) MAY BE CALCULATED USING THE TEMPERATURE EXPONENT W IN THE FOLLOWING FORM:  $\Delta E = W \Delta T$

THE EMISSIVITY IS 1.000, AND THE TEMPERATURE IS 3576.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREE K = 3800.0  
DEGREES FAHRENHEIT = 6380.2

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT W PER WATON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	143.00000	0.1407	0.0000	10.8140	0.1450	0.521
0.35500	155.13814	0.1521	0.0000	10.4517	0.9102	0.585
0.36000	167.75241	0.1646	0.0000	10.5114	7.7172	0.651
0.36500	180.83130	0.1773	0.0000	10.1714	6.5845	0.724
0.37000	194.35849	0.1905	0.0000	10.2315	2.4241	0.804
0.37500	208.30664	0.2042	0.0000	10.0952	10.5324	0.891
0.38000	222.64524	0.2181	0.0000	9.7654	11.8100	0.989
0.38500	237.37405	0.2321	0.0000	9.4331	12.7400	1.079
0.39000	252.48391	0.2475	0.0000	9.2071	13.9444	1.183
0.39500	267.98360	0.2639	0.0000	9.0443	15.2844	1.293
0.40000	283.87747	0.2807	77.5116	9.0464	16.6632	1.409
0.40500	299.44455	0.2936	142.9100	9.1474	18.1206	1.531
0.41000	315.65724	0.3094	257.5761	9.2310	19.6543	1.661
0.41500	332.55565	0.3255	404.7552	9.1227	21.2775	1.800
0.42000	350.18531	0.3417	594.2880	9.7164	22.9792	1.944
0.42500	368.58794	0.3592	813.4845	9.2083	24.7441	2.095
0.43000	387.72564	0.3767	1074.0944	9.4040	26.6131	2.253
0.43500	407.64011	0.3944	1460.2334	9.7034	28.5445	2.414
0.44000	428.29462	0.4090	1900.4402	9.4050	30.6250	2.584
0.44500	449.72715	0.4247	2544.1768	9.5044	32.7447	2.774
0.45000	471.95654	0.4415	3417.2131	9.4141	34.9577	2.947
0.45500	494.93232	0.4582	4594.0910	9.3219	37.2422	3.151
0.46000	518.67475	0.4749	6174.5607	9.2314	39.6120	3.352
0.46500	543.19990	0.4914	8233.4619	9.1433	42.0949	3.561
0.47000	568.56470	0.5081	10766.4078	9.0569	44.6645	3.777
0.47500	594.76700	0.5248	13758.3190	9.0723	47.2803	3.990
0.48000	621.80954	0.5409	17140.4824	9.1894	49.9979	4.229
0.48500	649.73011	0.5572	21119.7419	9.2084	52.7844	4.464
0.49000	678.45134	0.5732	25700.2240	9.2290	55.6414	4.714
0.49500	707.98004	0.5891	30929.0797	9.2512	58.6447	4.961
0.50000	738.31114	0.6047	36802.8647	9.2750	61.8005	5.214
0.50500	769.45114	0.6202	43310.0178	9.3001	64.8147	5.483
0.51000	801.45205	0.6358	50472.1303	9.2277	68.0172	5.741
0.51500	834.35217	0.6504	58230.0078	9.3553	71.2944	6.011
0.52000	868.14614	0.6652	66637.2524	9.2840	74.6524	6.314
0.52500	902.84541	0.6797	75700.0840	9.2150	78.0823	6.604
0.53000	938.45524	0.6939	85414.4368	9.1482	81.5855	6.901
0.53500	974.98245	0.7078	95724.7953	9.0817	85.1401	7.201
0.54000	1012.42709	0.7214	106724.1790	9.0164	88.8055	7.512
0.54500	1050.79291	0.7347	118448.7475	8.9526	92.5121	7.824
0.55000	1089.98962	0.7477	130810.2104	8.8894	96.3003	8.144
0.55500	1129.99627	0.7604	143801.9687	8.8272	100.1427	8.471
0.56000	1170.71110	0.7728	157399.4741	8.7677	103.0571	8.802
0.56500	1212.13124	0.7844	171599.9507	8.7043	106.0207	9.132
0.57000	1254.25714	0.7965	186401.9472	8.6400	112.0424	9.470

0.57500	424.18447	0.8070	512782.8429	4.5424	116.1547	9.825
0.58000	435.18344	0.8189	491217.4438	4.5363	120.3036	10.174
0.58500	444.27179	0.8294	470154.7529	4.5310	124.5079	10.539
0.59000	456.80757	0.8399	441052.7449	4.5267	128.7657	10.899
0.59500	464.94954	0.8499	409739.2661	4.5232	133.0754	11.254
0.60000	474.45177	0.8595	374224.6678	4.5207	137.4350	11.605
0.60500	484.28997	0.8688	341717.9402	4.5181	141.8429	11.950
0.61000	494.40844	0.8777	306245.5724	4.5163	146.2973	12.279
0.61500	504.17394	0.8863	271141.6879	4.5148	150.7944	12.599
0.62000	512.58725	0.8944	236433.1055	4.5139	155.3285	12.914
0.62500	520.65027	0.9025	200959.5410	4.5131	159.8917	13.227
0.63000	528.16517	0.9100	167291.4049	4.5124	164.4844	13.539
0.63500	535.73449	0.9173	138074.9818	4.5119	169.1040	13.849
0.64000	542.74112	0.9241	112184.5729	4.5116	173.7401	14.159
0.64500	549.48025	0.9307	89094.2242	4.5115	178.3910	14.469
0.65000	555.79942	0.9369	69541.8556	4.5112	183.0551	14.779
0.65500	561.81849	0.9428	52974.9572	4.5111	187.7302	15.089
0.66000	567.50924	0.9484	40132.2831	4.5110	192.4127	15.399
0.66500	572.87422	0.9537	29770.8121	4.5110	197.1000	15.709
0.67000	577.92385	0.9586	21279.6299	4.5110	201.7899	16.019
0.67500	582.65480	0.9632	15348.7524	4.5110	207.4825	16.329
0.68000	587.07994	0.9674	11410.4443	4.5110	212.5669	16.639
0.68500	591.19831	0.9714	8020.7749	4.5110	217.5194	16.949
0.69000	595.01710	0.9754	5548.2154	4.5110	222.4744	17.259
0.69500	598.54155	0.9794	3870.3471	4.5110	227.4624	17.569
0.70000	1001.77704	0.9829	2747.4545	4.5110	232.4813	17.879
0.70500	1004.72914	0.9869	1941.3299	4.5110	237.4797	18.189
0.71000	1007.48344	0.9905	1434.8721	4.5110	242.5102	18.499
0.71500	1009.90544	0.9939	1030.0014	4.5110	247.5533	18.809
0.72000	1011.94101	0.9970	754.9319	4.5110	252.6078	19.119
0.72500	1013.61574	0.9994	482.4741	4.5110	257.6729	19.429
0.73000	1015.43554	0.9994	345.2481	4.5110	262.7455	19.739
0.73500	1016.80417	0.9994	274.4713	4.5110	267.8242	20.049
0.74000	1017.93124	0.9994	207.4544	4.5110	272.9111	20.359
0.74500	1018.92282	0.9994	136.5599	4.5110	278.0051	20.669
0.75000	1019.48060	0.9994	49.3247	4.5110	283.1010	20.979
0.75500	1020.12193	1.0000	0.0000	4.5110	288.2007	21.289
0.76000	1019.90925	0.9999	0.0000	4.5110	293.3006	21.599
0.76500	1018.98204	0.9998	0.0000	4.5110	298.4002	21.909
0.77000	1017.08791	0.9997	0.0000	4.5110	303.5000	22.219
0.77500	1014.56802	0.9994	0.0000	4.5110	308.6000	22.529
0.78000	1011.36790	0.9994	0.0000	4.5110	313.7000	22.839
0.78500	1007.52694	0.9994	0.0000	4.5110	318.8000	23.149
0.79000	1003.08984	0.9993	0.0000	4.5110	323.9000	23.459
0.79500	998.09179	0.9994	0.0000	4.5110	329.0000	23.769
0.80000	992.57169	0.9994	0.0000	4.5110	334.1000	24.079
0.80500	986.56434	0.9994	0.0000	4.5110	339.2000	24.389
0.81000	980.11091	0.9994	0.0000	4.5110	344.3000	24.699
0.81500	973.23970	0.9994	0.0000	4.5110	349.4000	25.009
0.82000	965.98294	0.9994	0.0000	4.5110	354.5000	25.319
0.82500	958.17374	0.9994	0.0000	4.5110	359.6000	25.629
0.83000	950.44087	0.9994	0.0000	4.5110	364.7000	25.939
0.83500	942.71244	0.9994	0.0000	4.5110	369.8000	26.249
0.84000	933.71537	0.9994	0.0000	4.5110	374.9000	26.559
0.84500	924.97544	0.9994	0.0000	4.5110	380.0000	26.869

0.85000	916.01571	0.9994	0.0000	4.5110	385.1000	27.179
0.85500	906.94024	0.9994	0.0000	4.5110	390.2000	27.489
0.86000	897.43040	0.9994	0.0000	4.5110	395.3000	27.799
0.86500	887.94691	0.9994	0.0000	4.5110	400.4000	28.109
0.87000	878.42844	0.9994	0.0000	4.5110	405.5000	28.419
0.87500	868.45474	0.9994	0.0000	4.5110	410.6000	28.729
0.88000	858.44175	0.9994	0.0000	4.5110	415.7000	29.039
0.88500	848.48409	0.9994	0.0000	4.5110	420.8000	29.349
0.89000	838.49313	0.9994	0.0000	4.5110	425.9000	29.659
0.89500	828.47444	0.9994	0.0000	4.5110	431.0000	29.969
0.90000	818.43105	0.9994	0.0000	4.5110	436.1000	30.279
0.90500	808.46409	0.9994	0.0000	4.5110	441.2000	30.589
0.91000	798.47974	0.9994	0.0000	4.5110	446.3000	30.899
0.91500	788.48079	0.9994	0.0000	4.5110	451.4000	31.209
0.92000	778.46904	0.9994	0.0000	4.5110	456.5000	31.519
0.92500	768.44469	0.9994	0.0000	4.5110	461.6000	31.829
0.93000	758.40774	0.9994	0.0000	4.5110	466.7000	32.139
0.93500	748.35844	0.9994	0.0000	4.5110	471.8000	32.449
0.94000	738.29644	0.9994	0.0000	4.5110	476.9000	32.759
0.94500	728.22144	0.9994	0.0000	4.5110	482.0000	33.069
0.95000	718.13344	0.9994	0.0000	4.5110	487.1000	33.379
0.95500	708.03244	0.9994	0.0000	4.5110	492.2000	33.689
0.96000	697.91844	0.9994	0.0000	4.5110	497.3000	33.999
0.96500	687.79144	0.9994	0.0000	4.5110	502.4000	34.309
0.97000	677.65144	0.9994	0.0000	4.5110	507.5000	34.619
0.97500	667.49844	0.9994	0.0000	4.5110	512.6000	34.929
0.98000	657.33244	0.9994	0.0000	4.5110	517.7000	35.239
0.98500	647.15344	0.9994	0.0000	4.5110	522.8000	35.549
0.99000	636.96144	0.9994	0.0000	4.5110	527.9000	35.859
0.99500	626.75644	0.9994	0.0000	4.5110	533.0000	36.169
1.00000	616.53844	0.9994	0.0000	4.5110	538.1000	36.479

1.50000	429.28004	0.4208	0.0000	2.7434	840.4424	71.124
1.60000	432.45904	0.3822	0.0000	2.4110	840.7111	74.487
1.70000	435.55000	0.3123	0.0000	2.4460	915.0470	77.401
1.80000	275.27130	0.2696	0.0000	2.1955	944.6791	79.008
1.90000	230.53570	0.2314	0.0000	2.1070	970.3193	82.077
2.00000	207.33801	0.2032	0.0000	2.2284	992.5707	83.959
2.10000	180.80202	0.1772	0.0000	2.1585	1011.9422	85.594
2.20000	158.18110	0.1551	0.0000	2.0957	1029.8615	87.029
2.30000	138.04659	0.1341	0.0000	2.0391	1043.6878	88.261
2.40000	127.27281	0.1199	0.0000	1.9879	1056.7228	89.354
2.50000	108.02195	0.1059	0.0000	1.9413	1068.2197	90.354
2.60000	95.78943	0.0934	0.0000	1.8987	1078.3923	91.214
2.70000	85.00259	0.0834	0.0000	1.8597	1087.4208	91.982
2.80000	75.85913	0.0744	0.0000	1.8239	1095.4574	92.662
2.90000	67.81875	0.0665	0.0000	1.7904	1102.4371	93.269
3.00000	60.70974	0.0596	0.0000	1.7602	1109.0552	93.819
3.10000	54.64291	0.0534	0.0000	1.7319	1114.8205	94.300
3.20000	49.23664	0.0483	0.0000	1.7055	1120.0047	94.735
3.30000	44.47849	0.0434	0.0000	1.6809	1124.6892	95.135
3.40000	40.26344	0.0395	0.0000	1.6579	1128.9217	95.499
3.50000	36.53453	0.0364	0.0000	1.6364	1132.7579	95.817
3.60000	33.22214	0.0324	0.0000	1.6161	1136.2425	96.112
3.70000	30.27264	0.0297	0.0000	1.5973	1139.4144	96.380
3.80000	27.63994	0.0271	0.0000	1.5795	1142.3076	96.624
3.90000	25.28451	0.0248	0.0000	1.5625	1144.9517	96.844
4.00000	23.17247	0.0227	0.0000	1.5467	1147.3724	97.051
4.10000	21.27444	0.0209	0.0000	1.5317	1149.5913	97.241
4.20000	19.56527	0.0192	0.0000	1.5175	1151.6114	97.414
4.30000	18.02301	0.0177	0.0000	1.5039	1153.5119	97.573
4.40000	16.62869	0.0163	0.0000	1.4911	1155.2913	97.719
4.50000	15.36549	0.0151	0.0000	1.4789	1156.8620	97.854
4.60000	14.21957	0.0139	0.0000	1.4673	1158.3203	97.979
4.70000	13.17747	0.0129	0.0000	1.4562	1159.6894	98.094
4.80000	12.22891	0.0120	0.0000	1.4454	1160.9990	98.202
4.90000	11.36354	0.0111	0.0000	1.4355	1162.1379	98.302
5.00000	10.57296	0.0104	0.0000	1.4259	1163.2142	98.395
5.10000	9.84960	0.0097	0.0000	1.4164	1164.2504	98.481
5.20000	9.18675	0.0090	0.0000	1.4074	1165.2641	98.562
5.30000	8.57847	0.0084	0.0000	1.3989	1166.2619	98.637
5.40000	8.01944	0.0079	0.0000	1.3911	1167.2515	98.707
5.50000	7.50510	0.0074	0.0000	1.3833	1168.2391	98.771
5.60000	7.03113	0.0069	0.0000	1.3758	1169.2258	98.834
5.70000	6.59384	0.0065	0.0000	1.3684	1169.2048	98.892
5.80000	6.18989	0.0061	0.0000	1.3614	1169.1747	98.944
5.90000	5.81630	0.0057	0.0000	1.3549	1169.1358	98.994
6.00000	5.47034	0.0054	0.0000	1.3484	1169.0909	99.044
6.10000	5.14968	0.0050	0.0000	1.3422	1169.0407	99.089
6.20000	4.85208	0.0045	0.0000	1.3362	1169.0006	99.131
6.30000	4.57560	0.0045	0.0000	1.3303	1169.0118	99.171
6.40000	4.31844	0.0042	0.0000	1.3247	1169.0544	99.209
6.50000	4.07911	0.0040	0.0000	1.3193	1169.1271	99.248
6.60000	3.85665	0.0038	0.0000	1.3140	1169.2277	99.274
6.70000	3.64799	0.0034	0.0000	1.3090	1169.3678	99.316
6.80000	3.45374	0.0034	0.0000	1.3040	1169.5028	99.349
6.90000	3.27221	0.0032	0.0000	1.2991	1169.6319	99.364

7.00000	3.10242	0.0030	0.0000	1.2944	1169.7576	99.395
7.10000	2.94344	0.0029	0.0000	1.2902	1169.8598	99.421
7.20000	2.79444	0.0027	0.0000	1.2858	1169.9444	99.445
7.30000	2.65492	0.0026	0.0000	1.2814	1169.9910	99.464
7.40000	2.52344	0.0025	0.0000	1.2775	1170.1779	99.490
7.50000	2.40044	0.0024	0.0000	1.2735	1170.4241	99.511
7.60000	2.28412	0.0022	0.0000	1.2694	1170.6583	99.530
7.70000	2.17431	0.0021	0.0000	1.2659	1170.8813	99.549
7.80000	2.07144	0.0020	0.0000	1.2622	1171.0934	99.567
7.90000	1.97470	0.0019	0.0000	1.2587	1171.2943	99.584
8.00000	1.88444	0.0018	0.0000	1.2552	1171.4895	99.601
8.10000	1.80044	0.0017	0.0000	1.2518	1171.6714	99.614
8.20000	1.71970	0.0017	0.0000	1.2485	1171.8428	99.631
8.30000	1.64322	0.0016	0.0000	1.2453	1172.0119	99.645
8.40000	1.57094	0.0015	0.0000	1.2422	1172.1785	99.659
8.50000	1.50258	0.0015	0.0000	1.2392	1172.3322	99.672
8.60000	1.43749	0.0014	0.0000	1.2362	1172.4792	99.684
8.70000	1.37464	0.0013	0.0000	1.2333	1172.6179	99.698
8.80000	1.31442	0.0013	0.0000	1.2305	1172.7544	99.708
8.90000	1.25631	0.0012	0.0000	1.2277	1172.8817	99.719
9.00000	1.20144	0.0012	0.0000	1.2250	1173.0074	99.729
9.10000	1.14993	0.0011	0.0000	1.2224	1173.1241	99.739
9.20000	1.10142	0.0011	0.0000	1.2198	1173.2399	99.749
9.30000	1.05574	0.0010	0.0000	1.2173	1173.3491	99.754
9.40000	1.01241	0.0010	0.0000	1.2148	1173.4540	99.767
9.50000	0.97144	0.0010	0.0000	1.2124	1173.5544	99.775
9.60000	0.93291	0.0009	0.0000	1.2101	1173.6516	99.784
9.70000	0.89644	0.0009	0.0000	1.2078	1173.7444	99.791
9.80000	0.86194	0.0009	0.0000	1.2055	1173.8341	99.799
9.90000	0.82944	0.0008	0.0000	1.2033	1173.9222	99.804
10.00000	0.79844	0.0008	0.0000	1.2012	1174.0081	99.811
10.10000	0.76844	0.0008	0.0000	1.1991	1174.0928	99.820
10.20000	0.73944	0.0007	0.0000	1.1970	1174.1597	99.827
10.30000	0.71144	0.0007	0.0000	1.1950	1174.2317	99.833
10.40000	0.68444	0.0007	0.0000	1.1930	1174.3040	99.839
10.50000	0.65844	0.0007	0.0000	1.1911	1174.3738	99.845
10.60000	0.63344	0.0006	0.0000	1.1892	1174.4401	99.850
10.70000	0.60844	0.0006	0.0000	1.1873	1174.5040	99.856
10.80000	0.58444	0.0006	0.0000	1.1855	1174.5658	99.861
10.90000	0.56044	0.0006	0.0000	1.1837	1174.6253	99.864
11.00000	0.53744	0.0006	0.0000	1.1819	1174.6829	99.871
11.10000	0.51444	0.0005	0.0000	1.1802	1174.7385	99.876
11.20000	0.49244	0.0005	0.0000	1.1785	1174.7921	99.880
11.30000	0.47044	0.0005	0.0000	1.1768	1174.8440	99.884
11.40000	0.44844	0.0005	0.0000	1.1752	1174.8942	99.889
11.50000	0.42744	0.0005	0.0000	1.1736	1174.9427	99.893
11.60000	0.40644	0.0005	0.0000	1.1720	1175.0004	99.897
11.70000	0.38544	0.0005	0.0000	1.1705	1175.0550	99.901
11.80000	0.36444	0.0004	0.0000	1.1690	1175.1070	99.904
11.90000	0.34344	0.0004	0.0000	1.1675	1175.1575	99.908
12.00000	0.32244	0.0004	0.0000	1.1660	1175.2067	99.911



# VISIBILITY AND OTHER DATA FOR PLANCK RADIATION, MECHANICS DIVISION, U.S. AIR FORCE, WRIGHT-PATTERSON AIR FORCE BASE, OHIO

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3273.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3850.0  
DEGREES FAHRENHEIT = 6070.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 280.72 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 0.0000 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 0.0000 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.239.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 0.0000 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 0.0000 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7527 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.7527 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT INTENSITY TO TOTAL RADIANT INTENSITY.

THE TOTAL POWER RADIATED IS 1205.67 WATT/CM<sup>2</sup> OR 1.20567E+01 WATT/CM<sup>2</sup> OR 0.00000001 WATT/CM<sup>2</sup>.

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1090.05 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT INTENSITY \* VISIBILITY FACTOR,  
WHERE RADIANT INTENSITY IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED THE CHANGE IN RADIANT INTENSITY (%) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: % CHG = M \* % CHG T.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3273.6 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3850.0  
DEGREES FAHRENHEIT = 6070.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATT/CM <sup>2</sup> /MICRON	PEAK SURF. INT. TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPO. IN M FROM PEAK	POWER FROM ZERO TO L	S. TOTAL POWER ZERO TO L
0.35000	166.57534	0.1511	0.0000	10.4756	7.2193	0.570
0.35500	176.14202	0.1514	0.0000	10.4525	8.0720	0.648
0.36000	192.13087	0.1516	0.0000	10.4271	9.4940	0.722
0.36500	209.40762	0.1519	0.0000	10.4000	11.2370	0.802
0.37000	221.47444	0.1520	0.0000	10.3707	13.0479	0.880
0.37500	237.48780	0.1521	0.0000	10.3401	15.2164	0.961
0.38000	253.48714	0.1522	0.0000	10.3084	17.6415	1.070
0.38500	269.70797	0.1527	0.0000	10.2754	19.7511	1.188
0.39000	284.14067	0.1529	0.0000	10.2411	21.6111	1.294
0.39500	301.13184	0.1528	0.0000	10.2057	23.1515	1.414
0.40000	320.55924	0.1524	47.2030	10.1697	24.1740	1.539
0.40500	338.12109	0.1505	181.0199	10.1325	25.4217	1.672
0.41000	355.47461	0.1484	290.1917	10.1141	26.5444	1.811
0.41500	371.40212	0.1453	449.2142	10.0888	27.3806	1.957
0.42000	389.91461	0.1409	1066.0627	10.0673	28.2951	2.111
0.42500	410.18095	0.1366	2036.1382	10.0498	29.3073	2.272
0.43000	428.52904	0.1315	3350.2444	10.0407	30.1971	2.440
0.43500	444.94160	0.1264	5105.9751	10.0300	32.5858	2.616
0.44000	465.41620	0.1274	7279.1094	10.0135	34.8647	2.790
0.44500	481.49683	0.1244	9542.4061	10.0000	37.2600	2.968
0.45000	500.35912	0.1203	12980.9648	10.0051	39.7054	3.187
0.45500	520.74235	0.1162	16988.3363	10.0140	42.2435	3.391
0.46000	539.11754	0.1151	21996.8111	10.0374	44.9133	3.604
0.46500	557.19794	0.1114	28084.3460	10.0725	47.4547	3.826
0.47000	575.54192	0.1085	35614.6540	10.1200	50.4871	4.053
0.47500	593.54731	0.1050	45204.5687	10.1690	53.4099	4.284
0.48000	611.38754	0.1016	57788.3409	10.1773	56.4273	4.528
0.48500	629.04180	0.1074	72949.6671	10.1703	59.5235	4.774
0.49000	646.49489	0.1036	91440.2372	10.1290	62.7124	5.036
0.49500	663.72312	0.1004	114443.5839	10.1522	65.9440	5.297
0.50000	680.71031	0.0950	149511.2133	10.1770	69.1692	5.567
0.50500	697.43943	0.0904	193023.4483	10.4031	72.7947	5.848
0.51000	713.89615	0.0855	244181.0397	10.1110	76.1731	6.127
0.51500	730.06485	0.0804	301838.0107	10.2902	79.9332	6.417
0.52000	745.93259	0.0849	360136.2542	10.1704	83.4233	6.713
0.52500	761.48711	0.0892	410674.3112	10.1227	87.1920	7.016
0.53000	774.71720	0.1132	455280.5567	10.0559	91.2376	7.326
0.53500	791.61245	0.1244	492581.1996	10.0003	95.1544	7.639
0.54000	806.14429	0.1402	529974.9004	10.0740	99.1511	7.964
0.54500	820.34184	0.1511	566690.4727	10.0429	103.2104	8.286
0.55000	834.20404	0.1660	584822.4567	10.0110	107.3542	8.614
0.55500	847.67484	0.1784	574421.5548	10.1402	111.5610	8.956
0.56000	860.78154	0.1904	582404.8144	10.0405	115.8123	9.299
0.56500	873.50869	0.0021	581512.2030	10.0219	120.1642	9.647
0.57000	884.45590	0.0114	571467.6739	10.0444	124.5668	10.000

0.57500	897.82004	0.4244	594673.6521	4.5078	129.0241	10.354
0.58000	909.39843	0.4350	538000.3440	6.4523	133.5443	10.721
0.58500	920.59044	0.4453	511443.7231	4.3977	138.1194	11.044
0.59000	931.39347	0.4552	479444.3044	4.3441	142.7494	11.444
0.59500	941.80871	0.4648	445098.7957	6.2914	147.4327	11.834
0.60000	951.83513	0.4740	408413.4183	4.2396	152.1670	12.214
0.60500	961.47384	0.4829	370705.8481	6.1887	156.9574	12.600
0.61000	970.72471	0.4913	332077.1934	4.1384	161.7411	12.987
0.61500	979.59390	0.4995	293740.4175	6.0884	166.5570	13.379
0.62000	988.07914	0.5073	254991.9478	4.0410	171.3743	13.774
0.62500	996.18465	0.5147	217447.1841	5.9934	176.1972	14.172
0.63000	1003.91345	0.5214	180905.2039	5.9465	181.0176	14.573
0.63500	1011.24899	0.5284	144222.8523	5.9005	185.8357	14.974
0.64000	1018.25504	0.5350	121172.1524	5.8551	191.6494	15.385
0.64500	1024.87574	0.5411	94174.1429	5.8105	196.4576	15.795
0.65000	1031.13554	0.5464	75025.4219	5.7664	201.2674	16.208
0.65500	1037.03003	0.5522	57120.1099	5.7234	207.0643	16.623
0.66000	1042.56114	0.5573	43244.6822	5.6809	212.8476	17.044
0.66500	1047.79714	0.5621	32947.5924	5.6391	217.4937	17.464
0.67000	1052.44275	0.5664	22905.9306	5.5979	222.7449	17.887
0.67500	1057.10207	0.5707	14534.8440	5.5573	228.0167	18.305
0.68000	1061.39279	0.5744	12249.4949	5.5173	233.3143	18.730
0.68500	1065.24874	0.5782	4420.1544	5.4780	238.4331	19.157
0.69000	1068.62745	0.5814	5559.7819	5.4395	243.9845	19.585
0.69500	1072.07464	0.5848	4155.3405	5.4010	249.3208	20.015
0.70000	1075.01490	0.5877	2997.1443	5.3634	254.4847	20.444
0.70500	1077.65809	0.5905	2125.1414	5.3264	260.0705	20.874
0.71000	1080.00733	0.5934	1542.2405	5.2899	265.4644	21.311
0.71500	1082.04997	0.5952	1103.7114	5.2539	270.8701	21.744
0.72000	1083.85244	0.5964	810.7214	5.2185	274.2850	22.180
0.72500	1085.36115	0.5964	514.4319	5.1834	281.7041	22.614
0.73000	1086.40254	0.5977	340.4440	5.1491	287.1341	23.051
0.73500	1087.50109	0.5984	295.8224	5.1152	292.5737	23.487
0.74000	1088.30921	0.5984	222.0151	5.0817	298.0135	23.924
0.74500	1088.74735	0.5984	144.0751	5.0484	303.4544	24.361
0.75000	1089.02390	1.0000	74.0536	5.0162	308.9010	24.798
0.75500	1089.79770	0.9994	0.0000	4.9834	319.7009	25.679
0.76000	1089.74411	0.9987	0.0000	4.9494	330.6740	26.546
0.76500	1089.72377	0.9984	0.0000	4.9154	341.5417	27.414
0.77000	1089.74734	0.9984	0.0000	4.7717	352.3854	28.289
0.77500	1070.44034	0.9912	0.0000	4.7146	363.1947	29.157
0.78000	1074.24401	0.9874	0.0000	4.6590	373.9731	30.029
0.78500	1070.44272	0.9829	0.0000	4.6049	384.7022	30.883
0.79000	1064.98644	0.9779	0.0000	4.5521	395.3799	31.740
0.79500	1054.94954	0.9724	0.0000	4.5007	406.0001	32.591
0.80000	1052.41101	0.9664	0.0000	4.4506	416.5573	33.444
0.80500	1045.37041	0.9599	0.0000	4.4017	427.0466	34.289
0.81000	1037.87861	0.9530	0.0000	4.3541	437.4632	35.119
0.81500	1029.97049	0.9457	0.0000	4.3074	447.8078	35.949
0.82000	1021.44491	0.9381	0.0000	4.2622	458.0414	36.779
0.82500	1013.04147	0.9302	0.0000	4.2179	468.2153	37.589
0.83000	1004.04450	0.9220	0.0000	4.1747	478.3212	38.399
0.83500	994.83431	0.9135	0.0000	4.1325	488.3140	39.201
0.84000	985.33124	0.9048	0.0000	4.0912	498.2170	39.994
0.84500	975.54494	0.8958	0.0000	4.0509	508.0218	40.783

0.95000	945.43947	0.8447	0.0000	4.0114	517.7241	41.569
0.95500	935.50384	0.8374	0.0000	3.9731	527.1340	42.333
0.96000	925.20524	0.8299	0.0000	3.9354	536.4377	43.094
0.96500	914.74504	0.8243	0.0000	3.8947	544.2376	43.851
0.97000	904.20317	0.8184	0.0000	3.8624	555.5326	44.597
1.00000	913.53864	0.8144	0.0000	3.8274	564.7214	45.335
1.01000	902.74453	0.8099	0.0000	3.7932	573.8031	46.064
1.02000	891.97002	0.8049	0.0000	3.7595	582.7749	46.784
1.03000	881.09464	0.8000	0.0000	3.7264	591.6423	47.494
1.04000	870.14462	0.7990	0.0000	3.6943	600.3947	48.199
1.05000	859.24349	0.7940	0.0000	3.6624	609.0460	48.893
1.06000	844.30447	0.7749	0.0000	3.6314	617.5818	49.579
1.07000	837.55499	0.7689	0.0000	3.6014	626.0121	50.255
1.08000	824.42229	0.7584	0.0000	3.5719	634.3310	50.923
1.09000	814.57654	0.7444	0.0000	3.5424	642.5406	51.582
1.10000	804.42131	0.7384	0.0000	3.5144	650.6412	52.232
1.11000	793.77537	0.7249	0.0000	3.4865	658.6312	52.874
1.12000	782.97449	0.7180	0.0000	3.4591	666.5169	53.507
1.13000	772.23341	0.7091	0.0000	3.4323	674.2929	54.131
1.14000	761.55144	0.6993	0.0000	3.4060	681.9614	54.747
1.15000	750.93142	0.6894	0.0000	3.3802	689.5242	55.354
1.16000	740.39054	0.6799	0.0000	3.3549	696.9808	55.959
1.17000	729.91697	0.6703	0.0000	3.3301	704.3324	56.549
1.18000	719.56672	0.6607	0.0000	3.3054	711.5799	57.124
1.19000	709.27444	0.6513	0.0000	3.2819	718.7240	57.688
1.20000	699.04499	0.6419	0.0000	3.2584	725.7657	58.243
1.21000	688.94791	0.6324	0.0000	3.2354	732.7040	58.800
1.22000	678.94044	0.6235	0.0000	3.2124	739.5454	59.349
1.23000	669.04404	0.6144	0.0000	3.1907	746.2862	59.910
1.24000	659.30644	0.6054	0.0000	3.1689	752.9281	60.444
1.25000	649.62444	0.5964	0.0000	3.1475	759.4727	60.969
1.26000	640.05259	0.5877	0.0000	3.1265	765.9210	61.487
1.27000	630.59159	0.5790	0.0000	3.1059	772.2741	61.997
1.28000	621.24134	0.5704	0.0000	3.0856	778.5332	62.499
1.29000	612.00014	0.5620	0.0000	3.0657	784.6993	62.994
1.30000	602.84002	0.5534	0.0000	3.0461	790.7737	63.482
1.31000	593.84474	0.5453	0.0000	3.0269	796.7575	63.962
1.32000	585.00099	0.5372	0.0000	3.0084	802.6519	64.439
1.33000	576.23462	0.5291	0.0000	2.9894	808.4579	64.901
1.34000	567.57807	0.5212	0.0000	2.9711	814.1749	65.361
1.35000	559.04322	0.5133	0.0000	2.9532	819.8099	65.813
1.36000	550.62544	0.5054	0.0000	2.9355	825.3581	66.258
1.37000	542.32597	0.4980	0.0000	2.9181	830.8228	66.697
1.38000	534.14309	0.4905	0.0000	2.9010	836.2050	67.129
1.39000	526.07719	0.4831	0.0000	2.8842	841.5060	67.554
1.40000	518.12747	0.4759	0.0000	2.8677	846.7270	67.974
1.41000	510.29347	0.4686	0.0000	2.8514	851.8670	68.388
1.42000	502.57504	0.4615	0.0000	2.8354	856.9332	68.793
1.43000	494.97094	0.4544	0.0000	2.8196	861.9209	69.193
1.44000	487.44043	0.4474	0.0000	2.8041	866.8330	69.588
1.45000	480.10294	0.4408	0.0000	2.7888	871.6709	69.974
1.46000	472.83719	0.4347	0.0000	2.7738	876.4355	70.359
1.47000	465.44240	0.4274	0.0000	2.7590	881.1240	70.735
1.48000	458.43814	0.4211	0.0000	2.7444	885.7495	71.104
1.49000	451.70249	0.4148	0.0000	2.7300	890.3011	71.479

1.50000	444.87463	0.4085	0.0000	2.7159	804.7819	71.832
1.60000	182.26449	0.3510	0.0000	2.5855	936.0570	75.145
1.70000	329.06686	0.3029	0.0000	2.4724	971.5506	77.994
1.80000	281.96674	0.2608	0.0000	2.3734	1002.1409	80.450
1.90000	245.80579	0.2257	0.0000	2.2865	1028.5778	82.579
2.00000	213.43998	0.1960	0.0000	2.2091	1051.4958	84.412
2.10000	185.95421	0.1707	0.0000	2.1405	1071.4263	86.012
2.20000	162.35631	0.1493	0.0000	2.0787	1088.8297	87.409
2.30000	142.58237	0.1309	0.0000	2.0231	1104.0536	88.631
2.40000	125.47927	0.1152	0.0000	1.9727	1117.4368	89.706
2.50000	110.78761	0.1017	0.0000	1.9264	1129.2207	90.659
2.60000	98.12633	0.9001	0.0000	1.8850	1139.6509	91.490
2.70000	87.17909	0.8081	0.0000	1.8464	1148.9121	92.232
2.80000	77.68311	0.0713	0.0000	1.8114	1157.1481	92.893
2.90000	69.41944	0.0637	0.0000	1.7789	1164.4808	93.483
3.00000	62.20418	0.0571	0.0000	1.7488	1171.0679	94.011
3.10000	55.89005	0.0511	0.0000	1.7209	1176.9609	94.484
3.20000	50.34319	0.0462	0.0000	1.6949	1182.2664	94.918
3.30000	45.45787	0.0417	0.0000	1.6707	1187.0515	95.294
3.40000	41.14314	0.0378	0.0000	1.6481	1191.3772	95.641
3.50000	37.32214	0.0343	0.0000	1.6270	1195.2946	95.956
3.60000	33.92951	0.0312	0.0000	1.6071	1198.8559	96.247
3.70000	30.90961	0.0284	0.0000	1.5885	1202.0988	96.502
3.80000	28.21467	0.0259	0.0000	1.5709	1205.0496	96.739
3.90000	25.80490	0.0237	0.0000	1.5544	1207.7474	96.956
4.00000	23.64447	0.0217	0.0000	1.5387	1210.2179	97.154
4.10000	21.70159	0.0199	0.0000	1.5239	1212.4816	97.334
4.20000	19.95624	0.0183	0.0000	1.5099	1214.5451	97.503
4.30000	18.37094	0.0169	0.0000	1.4964	1216.4406	97.657
4.40000	16.95520	0.0154	0.0000	1.4840	1218.2462	97.798
4.50000	15.68492	0.0144	0.0000	1.4720	1219.8741	97.929
4.60000	14.54929	0.0131	0.0000	1.4605	1221.3811	98.050
4.70000	13.53014	0.0121	0.0000	1.4494	1222.7755	98.162
4.80000	12.61144	0.0114	0.0000	1.4387	1224.0724	98.264
4.90000	11.77832	0.0104	0.0000	1.4283	1225.2737	98.363
5.00000	10.77185	0.0099	0.0000	1.4197	1226.3906	98.458
5.10000	10.01337	0.0092	0.0000	1.4104	1227.4305	98.548
5.20000	9.45702	0.0084	0.0000	1.4019	1228.3993	98.634
5.30000	8.71650	0.0080	0.0000	1.3934	1229.3035	98.714
5.40000	8.14615	0.0075	0.0000	1.3855	1230.1483	98.787
5.50000	7.64177	0.0070	0.0000	1.3778	1230.9381	98.857
5.60000	7.19847	0.0064	0.0000	1.3704	1231.6780	98.922
5.70000	6.71241	0.0062	0.0000	1.3631	1232.3713	98.985
5.80000	6.30084	0.0058	0.0000	1.3564	1233.0217	99.046
5.90000	5.92001	0.0054	0.0000	1.3494	1233.6325	99.100
6.00000	5.56744	0.0051	0.0000	1.3435	1234.2064	99.153
6.10000	5.24047	0.0048	0.0000	1.3373	1234.7440	99.204
6.20000	4.93742	0.0045	0.0000	1.3314	1235.2555	99.252
6.30000	4.65571	0.0043	0.0000	1.3257	1235.7359	99.299
6.40000	4.40374	0.0040	0.0000	1.3201	1236.1873	99.343
6.50000	4.18995	0.0038	0.0000	1.3144	1236.6144	99.385
6.60000	3.92275	0.0034	0.0000	1.3094	1237.0179	99.426
6.70000	3.71041	0.0034	0.0000	1.3044	1237.3994	99.465
6.80000	3.51302	0.0032	0.0000	1.2994	1237.7604	99.502
6.90000	3.32817	0.0031	0.0000	1.2941	1238.1025	99.537

7.00000	3.14522	0.0029	0.0000	1.2895	1238.4244	99.570
7.10000	2.99344	0.0027	0.0000	1.2841	1238.7319	99.601
7.20000	2.84144	0.0024	0.0000	1.2814	1239.0274	99.630
7.30000	2.69971	0.0022	0.0000	1.2777	1239.3026	99.658
7.40000	2.56611	0.0024	0.0000	1.2736	1239.5658	99.685
7.50000	2.44114	0.0022	0.0000	1.2697	1239.8151	99.710
7.60000	2.32310	0.0021	0.0000	1.2659	1240.0541	99.734
7.70000	2.21247	0.0020	0.0000	1.2622	1240.2810	99.758
7.80000	2.10810	0.0019	0.0000	1.2584	1240.4970	99.781
7.90000	2.01014	0.0018	0.0000	1.2551	1240.7029	99.801
8.00000	1.91762	0.0018	0.0000	1.2514	1240.9992	99.817
8.10000	1.841034	0.0017	0.0000	1.2483	1241.0846	99.832
8.20000	1.74794	0.0014	0.0000	1.2451	1241.2655	99.846
8.30000	1.67015	0.0015	0.0000	1.2419	1241.4343	99.859
8.40000	1.59662	0.0015	0.0000	1.2384	1241.5996	99.873
8.50000	1.52704	0.0014	0.0000	1.2354	1241.7544	99.886
8.60000	1.46114	0.0013	0.0000	1.2329	1241.9052	99.899
8.70000	1.39892	0.0013	0.0000	1.2301	1242.0482	99.912
8.80000	1.34097	0.0012	0.0000	1.2273	1242.1851	99.924
8.90000	1.28601	0.0012	0.0000	1.2244	1242.3143	99.936
9.00000	1.23397	0.0011	0.0000	1.2219	1242.4420	99.947
9.10000	1.18397	0.0011	0.0000	1.2193	1242.5625	99.958
9.20000	1.13592	0.0010	0.0000	1.2164	1242.6742	99.969
9.30000	1.13397	0.0010	0.0000	1.2143	1242.7832	99.977
9.40000	1.08474	0.0010	0.0000	1.2119	1242.8957	99.986
9.50000	1.03424	0.0009	0.0000	1.2094	1242.9941	99.993
9.60000	0.98415	0.0009	0.0000	1.2072	1243.0944	99.999
9.70000	0.92494	0.0009	0.0000	1.2049	1243.1910	99.999
9.80000	0.86154	0.0008	0.0000	1.2027	1243.2819	99.999
9.90000	0.85744	0.0008	0.0000	1.2004	1243.3494	99.999
10.00000	0.82570	0.0008	0.0000	1.1984	1243.4535	99.999
10.10000	0.79404	0.0007	0.0000	1.1963	1243.5366	99.999
10.20000	0.76579	0.0007	0.0000	1.1941	1243.6124	99.999
10.30000	0.73747	0.0007	0.0000	1.1923	1243.6878	99.999
10.40000	0.71121	0.0007	0.0000	1.1904	1243.7672	99.999
10.50000	0.684975	0.0006	0.0000	1.1884	1243.8390	99.999
10.60000	0.66141	0.0006	0.0000	1.1867	1243.9074	99.999
10.70000	0.63814	0.0006	0.0000	1.1850	1244.0724	99.999
10.80000	0.61544	0.0005	0.0000	1.1812	1244.0856	99.999
10.90000	0.59452	0.0005	0.0000	1.1794	1244.1440	99.999
11.00000	0.57420	0.0005	0.0000	1.1777	1244.2004	99.999
11.10000	0.55468	0.0005	0.0000	1.1761	1244.2550	99.999
11.20000	0.53599	0.0005	0.0000	1.1744	1244.3577	99.999
11.30000	0.51807	0.0005	0.0000	1.1724	1244.3586	99.999
11.40000	0.49990	0.0004	0.0000	1.1712	1244.4079	99.999
11.50000	0.48443	0.0004	0.0000	1.1697	1244.4455	99.999
11.60000	0.46841	0.0004	0.0000	1.1687	1244.5016	99.999
11.70000	0.45337	0.0004	0.0000	1.1667	1244.5442	99.999
11.80000	0.43892	0.0004	0.0000	1.1647	1244.5894	99.999
11.90000	0.42494	0.0004	0.0000	1.1637	1244.6312	99.999
12.00000	0.41142	0.0004	0.0000			

## VISIBILITY AND OTHER DATA FOR LANCHE RADIATION, MECHANICS DIVISION, C.S.C., UNIVERSITY OF DELAWARE.

THE EMISSIVITY IS 1.00% AS THE TEMPERATURE IS 3274.8 DEGREES CENTIGRADE FOR THE FLAME. THE EMISSIVITY OF THE FLAME = 1000.0  
THE EMISSIVITY OF THE SURFACE = 6560.9

THE POWER RADIATED FROM 0.05 X 0.25 MICRONS IS 314.01 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS  $4.9 \pm 0.1 \times 10^{-14} \text{ W m}^{-2} \text{ cm}^{-2}$ .

THE LUMINANCE ( L/P) OF TOTAL VISIBLE LIGHT IS 21371.15 CANDLE/FT<sup>2</sup>CD.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.240.

THE RATIO OF THE TOTAL VISIBILITY FIELD TO VISIBILITY POWER IS 211.52% VERSUS 42%.

THE RATIO OF THE TOTAL VOLUME TO THE INITIAL VOLUME IS 1.122

THE NAVY LENGTH OF STAIN WAFER : 10.7 IS 2.2831 1/12 45.

THE WAVELENGTH PRODUCT MUST BE IDENTICAL TO  $2.25 \times 10^{-10}$  METERS.  
[E.G., THIS MAXIMIZES THE RATIO OF SIGNAL MAXIMUM TO MINIMUM FOR A 100% MODULATION.]

THE TOTAL PUMP RADIATE IS  $1311.65 \text{ WATT/CM}^2$  @  $1.11165 \times 10^{-10} \text{ SEC/CM}^2$  @  $1.11165 \times 10^{-10} \text{ SEC/CM}^2$

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1141.4 mW (0.00156 HP).

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, 540 LUMENS PER WATT  $\times$  GA FACT  $\times$  INTA OF  $\times$  VISIBLITY FACTOR, WHERE RADIANT INTENSITY IS EXPRESSED IN WATTS PER CM AND DISTANCE IN CM MICRONS.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE CAN BE CALCULATED USING THE TEMPERATURE EXPONENT  $n$  IN THE FOLLOWING EQUATION:  $\Delta E = E n \Delta T$

THE FOLLOWS: 1955, 1960, AND THE INFORMATION: 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055, 2060, 2065, 2070, 2075, 2080, 2085, 2090, 2095, 2100, 2105, 2110, 2115, 2120, 2125, 2130, 2135, 2140, 2145, 2150, 2155, 2160, 2165, 2170, 2175, 2180, 2185, 2190, 2195, 2200, 2205, 2210, 2215, 2220, 2225, 2230, 2235, 2240, 2245, 2250, 2255, 2260, 2265, 2270, 2275, 2280, 2285, 2290, 2295, 2300, 2305, 2310, 2315, 2320, 2325, 2330, 2335, 2340, 2345, 2350, 2355, 2360, 2365, 2370, 2375, 2380, 2385, 2390, 2395, 2400, 2405, 2410, 2415, 2420, 2425, 2430, 2435, 2440, 2445, 2450, 2455, 2460, 2465, 2470, 2475, 2480, 2485, 2490, 2495, 2500, 2505, 2510, 2515, 2520, 2525, 2530, 2535, 2540, 2545, 2550, 2555, 2560, 2565, 2570, 2575, 2580, 2585, 2590, 2595, 2600, 2605, 2610, 2615, 2620, 2625, 2630, 2635, 2640, 2645, 2650, 2655, 2660, 2665, 2670, 2675, 2680, 2685, 2690, 2695, 2700, 2705, 2710, 2715, 2720, 2725, 2730, 2735, 2740, 2745, 2750, 2755, 2760, 2765, 2770, 2775, 2780, 2785, 2790, 2795, 2800, 2805, 2810, 2815, 2820, 2825, 2830, 2835, 2840, 2845, 2850, 2855, 2860, 2865, 2870, 2875, 2880, 2885, 2890, 2895, 2900, 2905, 2910, 2915, 2920, 2925, 2930, 2935, 2940, 2945, 2950, 2955, 2960, 2965, 2970, 2975, 2980, 2985, 2990, 2995, 3000, 3005, 3010, 3015, 3020, 3025, 3030, 3035, 3040, 3045, 3050, 3055, 3060, 3065, 3070, 3075, 3080, 3085, 3090, 3095, 3100, 3105, 3110, 3115, 3120, 3125, 3130, 3135, 3140, 3145, 3150, 3155, 3160, 3165, 3170, 3175, 3180, 3185, 3190, 3195, 3200, 3205, 3210, 3215, 3220, 3225, 3230, 3235, 3240, 3245, 3250, 3255, 3260, 3265, 3270, 3275, 3280, 3285, 3290, 3295, 3300, 3305, 3310, 3315, 3320, 3325, 3330, 3335, 3340, 3345, 3350, 3355, 3360, 3365, 3370, 3375, 3380, 3385, 3390, 3395, 3400, 3405, 3410, 3415, 3420, 3425, 3430, 3435, 3440, 3445, 3450, 3455, 3460, 3465, 3470, 3475, 3480, 3485, 3490, 3495, 3500, 3505, 3510, 3515, 3520, 3525, 3530, 3535, 3540, 3545, 3550, 3555, 3560, 3565, 3570, 3575, 3580, 3585, 3590, 3595, 3600, 3605, 3610, 3615, 3620, 3625, 3630, 3635, 3640, 3645, 3650, 3655, 3660, 3665, 3670, 3675, 3680, 3685, 3690, 3695, 3700, 3705, 3710, 3715, 3720, 3725, 3730, 3735, 3740, 3745, 3750, 3755, 3760, 3765, 3770, 3775, 3780, 3785, 3790, 3795, 3800, 3805, 3810, 3815, 3820, 3825, 3830, 3835, 3840, 3845, 3850, 3855, 3860, 3865, 3870, 3875, 3880, 3885, 3890, 3895, 3900, 3905, 3910, 3915, 3920, 3925, 3930, 3935, 3940, 3945, 3950, 3955, 3960, 3965, 3970, 3975, 3980, 3985, 3990, 3995, 4000, 4005, 4010, 4015, 4020, 4025, 4030, 4035, 4040, 4045, 4050, 4055, 4060, 4065, 4070, 4075, 4080, 4085, 4090, 4095, 4100, 4105, 4110, 4115, 4120, 4125, 4130, 4135, 4140, 4145, 4150, 4155, 4160, 4165, 4170, 4175, 4180, 4185, 4190, 4195, 4200, 4205, 4210, 4215, 4220, 4225, 4230, 4235, 4240, 4245, 4250, 4255, 4260, 4265, 4270, 4275, 4280, 4285, 4290, 4295, 4300, 4305, 4310, 4315, 4320, 4325, 4330, 4335, 4340, 4345, 4350, 4355, 4360, 4365, 4370, 4375, 4380, 4385, 4390, 4395, 4400, 4405, 4410, 4415, 4420, 4425, 4430, 4435, 4440, 4445, 4450, 4455, 4460, 4465, 4470, 4475, 4480, 4485, 4490, 4495, 4500, 4505, 4510, 4515, 4520, 4525, 4530, 4535, 4540, 4545, 4550, 4555, 4560, 4565, 4570, 4575, 4580, 4585, 4590, 4595, 4600, 4605, 4610, 4615, 4620, 4625, 4630, 4635, 4640, 4645, 4650, 4655, 4660, 4665, 4670, 4675, 4680, 4685, 4690, 4695, 4700, 4705, 4710, 4715, 4720, 4725, 4730, 4735, 4740, 4745, 4750, 4755, 4760, 4765, 4770, 4775, 4780, 4785, 4790, 4795, 4800, 4805, 4810, 4815, 4820, 4825, 4830, 4835, 4840, 4845, 4850, 4855, 4860, 4865, 4870, 4875, 4880, 4885, 4890, 4895, 4900, 4905, 4910, 4915, 4920, 4925, 4930, 4935, 4940, 4945, 4950, 4955, 4960, 4965, 4970, 4975, 4980, 4985, 4990, 4995, 5000, 5005, 5010, 5015, 5020, 5025, 5030, 5035, 5040, 5045, 5050, 5055, 5060, 5065, 5070, 5075, 5080, 5085, 5090, 5095, 5100, 5105, 5110, 5115, 5120, 5125, 5130, 5135, 5140, 5145, 5150, 5155, 5160, 5165, 5170, 5175, 5180, 5185, 5190, 5195, 5200, 5205, 5210, 5215, 5220, 5225, 5230, 5235, 5240, 5245, 5250, 5255, 5260, 5265, 5270, 5275, 5280, 5285, 5290, 5295, 5300, 5305, 5310, 5315, 5320, 5325, 5330, 5335, 5340, 5345, 5350, 535

[illegible]

0.95000	1016.42894	0.8752	0.0000	3.9442	557.4118	42.512
0.96000	1005.48267	0.8654	0.0000	3.9244	547.7240	43.281
0.97000	994.18675	0.8556	0.0000	3.9041	537.7222	44.045
0.98000	982.70312	0.8458	0.0000	3.8831	527.4065	44.799
0.99000	971.15284	0.8360	0.0000	3.8617	517.3749	45.544
1.00000	959.51374	0.8262	0.0000	3.7431	407.0203	46.280
1.01000	947.80519	0.8159	0.0000	3.7492	616.5459	47.007
1.02000	936.04364	0.8058	0.0000	3.7140	525.9852	47.725
1.03000	924.24892	0.7956	0.0000	3.6834	615.2847	48.434
1.04000	912.42374	0.7855	0.0000	3.6519	644.4700	49.134
1.05000	900.59383	0.7753	0.0000	3.6208	643.5351	49.825
1.06000	888.76825	0.7651	0.0000	3.5904	642.4819	50.507
1.07000	876.95861	0.7549	0.0000	3.5605	671.3165	51.181
1.08000	865.17400	0.7448	0.0000	3.5313	680.0212	51.845
1.09000	853.41084	0.7347	0.0000	3.5027	688.4142	52.500
1.10000	841.73251	0.7244	0.0000	3.4747	697.0900	53.146
1.11000	830.04969	0.7144	0.0000	3.4472	705.4400	53.783
1.12000	818.41059	0.7044	0.0000	3.4203	713.4970	54.412
1.13000	807.00218	0.6947	0.0000	3.3939	721.4195	55.031
1.14000	795.57201	0.6849	0.0000	3.3680	729.4323	55.642
1.15000	784.22573	0.6751	0.0000	3.3424	737.7312	56.244
1.16000	772.96917	0.6654	0.0000	3.3177	745.5171	56.839
1.17000	761.80750	0.6556	0.0000	3.2933	753.1959	57.423
1.18000	750.74540	0.6461	0.0000	3.2691	760.7536	58.000
1.19000	739.78700	0.6369	0.0000	3.2454	768.2041	58.568
1.20000	728.93448	0.6275	0.0000	3.2222	775.5497	59.128
1.21000	718.19667	0.6183	0.0000	3.2001	782.7852	59.679
1.22000	707.57004	0.6091	0.0000	3.1779	789.9140	60.221
1.23000	697.06200	0.6001	0.0000	3.1561	796.9371	60.754
1.24000	686.67207	0.5911	0.0000	3.1347	803.8554	61.286
1.25000	676.40323	0.5823	0.0000	3.1134	810.6799	61.805
1.26000	666.25721	0.5736	0.0000	3.0929	817.4181	62.317
1.27000	656.23557	0.5649	0.0000	3.0724	823.9645	62.821
1.28000	646.33945	0.5564	0.0000	3.0527	830.5092	63.318
1.29000	636.56905	0.5480	0.0000	3.0331	836.9217	63.807
1.30000	626.92774	0.5397	0.0000	3.0134	843.2811	64.288
1.31000	617.41754	0.5315	0.0000	2.9949	849.4627	64.761
1.32000	608.03944	0.5234	0.0000	2.9763	855.5898	65.225
1.33000	598.79313	0.5155	0.0000	2.9580	861.6516	65.680
1.34000	589.67861	0.5074	0.0000	2.9400	867.5456	66.143
1.35000	580.69544	0.4994	0.0000	2.9224	873.4140	66.589
1.36000	571.84355	0.4922	0.0000	2.9055	879.1749	67.028
1.37000	563.12543	0.4847	0.0000	2.8890	884.8527	67.461
1.38000	554.54012	0.4773	0.0000	2.8711	890.4198	67.887
1.39000	546.08965	0.4700	0.0000	2.8535	895.9813	68.308
1.40000	537.77516	0.4628	0.0000	2.8363	901.4584	68.719
1.41000	529.59849	0.4557	0.0000	2.8192	906.8929	69.124
1.42000	521.55925	0.4487	0.0000	2.8024	911.4454	69.524
1.43000	513.65848	0.4418	0.0000	2.7857	916.1174	69.921
1.44000	505.89600	0.4350	0.0000	2.7692	920.7211	70.309
1.45000	498.27245	0.4284	0.0000	2.7527	925.2588	70.691
1.46000	490.78883	0.4218	0.0000	2.7365	929.1626	71.064
1.47000	483.44513	0.4153	0.0000	2.7203	933.0248	71.439
1.48000	476.24134	0.4089	0.0000	2.7042	936.8155	71.804
1.49000	469.15755	0.4027	0.0000	2.6884	940.5249	72.161
0.47500	374.70767	0.8402	0.0722	4.0752	187.8842	10.901
0.48000	367.43343	0.8304	0.0640	4.0573	187.4098	11.276
0.48500	360.20496	0.8207	0.0558	4.0394	186.9418	11.654
0.49000	353.02064	0.8110	0.0476	4.0217	186.4800	12.037
0.49500	345.88005	0.8014	0.0394	4.0041	186.0244	12.425
0.50000	338.78280	0.7919	0.0312	3.9866	185.5748	12.814
0.50500	331.72849	0.7824	0.0230	3.9691	185.1312	13.211
0.51000	324.71662	0.7730	0.0148	3.9517	184.6935	13.609
0.51500	317.74669	0.7637	0.0066	3.9344	184.2617	14.011
0.52000	310.81820	0.7544	0.0000	3.9172	183.8358	14.417
0.52500	303.93163	0.7452	0.0000	3.9001	183.4158	14.825
0.53000	297.08740	0.7361	0.0000	3.8831	182.9917	15.237
0.53500	290.28503	0.7270	0.0000	3.8662	182.5735	15.651
0.54000	283.52404	0.7180	0.0000	3.8494	182.1612	16.064
0.54500	276.80395	0.7090	0.0000	3.8327	181.7548	16.488
0.55000	270.12526	0.7000	0.0000	3.8161	181.3543	16.910
0.55500	263.48749	0.6910	0.0000	3.7996	180.9597	17.334
0.56000	256.89114	0.6820	0.0000	3.7831	180.5712	17.761
0.56500	250.33580	0.6730	0.0000	3.7667	180.1887	18.189
0.57000	243.82097	0.6640	0.0000	3.7503	179.8122	18.619
0.57500	237.34614	0.6550	0.0000	3.7340	179.4417	19.051
0.58000	230.91181	0.6460	0.0000	3.7177	179.0772	19.485
0.58500	224.51848	0.6370	0.0000	3.7015	178.7187	19.920
0.59000	218.16565	0.6280	0.0000	3.6853	178.3662	20.354
0.59500	211.85282	0.6190	0.0000	3.6691	178.0197	20.784
0.60000	205.58049	0.6100	0.0000	3.6530	177.6792	21.232
0.60500	199.34816	0.6010	0.0000	3.6369	177.3447	21.671
0.61000	193.15533	0.5920	0.0000	3.6208	177.0162	22.117
0.61500	187.00250	0.5830	0.0000	3.6047	176.6937	22.553
0.62000	180.88917	0.5740	0.0000	3.5886	176.3772	22.988
0.62500	174.81484	0.5650	0.0000	3.5725	176.0667	23.434
0.63000	168.77901	0.5560	0.0000	3.5564	175.7622	23.878
0.63500	162.78118	0.5470	0.0000	3.5403	175.4637	24.321
0.64000	156.82085	0.5380	0.0000	3.5242	175.1712	24.764
0.64500	150.89752	0.5290	0.0000	3.5081	174.8847	25.207
0.65000	145.01069	0.5200	0.0000	3.4920	174.6042	25.649
0.65500	139.15986	0.5110	0.0000	3.4759	174.3297	26.090
0.66000	133.34453	0.5020	0.0000	3.4600	174.0612	26.534
0.66500	127.56420	0.4930	0.0000	3.4441	173.7987	26.978
0.67000	121.81837	0.4840	0.0000	3.4282	173.5422	27.421
0.67500	116.10654	0.4750	0.0000	3.4123	173.2917	27.864
0.68000	110.42821	0.4660	0.0000	3.3964	173.0472	28.307
0.68500	104.78288	0.4570	0.0000	3.3805	172.8087	28.750
0.69000	99.17005	0.4480	0.0000	3.3646	172.5762	29.193
0.69500	93.58922	0.4390	0.0000	3.3487	172.3497	29.636
0.70000	88.04009	0.4300	0.0000	3.3328	172.1292	30.079
0.70500	82.52206	0.4210	0.0000	3.3169	171.9147	30.522
0.71000	77.03563	0.4120	0.0000	3.3010	171.7062	30.965
0.71500	71.58030	0.4030	0.0000	3.2851	171.5037	31.408
0.72000	66.15547	0.3940	0.0000	3.2692	171.3072	31.851
0.72500	60.76164	0.3850	0.0000	3.2533	171.1167	32.294
0.73000	55.39831	0.3760	0.0000	3.2374	170.9322	32.737
0.73500	50.06598	0.3670	0.0000	3.2215	170.7537	33.180
0.74000	44.76415	0.3580	0.0000	3.2056	170.5812	33.623
0.74500	39.49232	0.3490	0.0000	3.1897	170.4147	34.066
0.75000	34.25099	0.3400	0.0000	3.1738	170.2542	34.509
0.75500	29.03966	0.3310	0.0000	3.1579	170.0997	34.952
0.76000	23.85873	0.3220	0.0000	3.1420	169.9512	35.395
0.76500	18.70860	0.3130	0.0000	3.1261	169.8087	35.838
0.77000	13.58967	0.3040	0.0000	3.1102	169.6722	36.281
0.77500	8.50134	0.2950	0.0000	3.0943	169.5417	36.724
0.78000	3.44301	0.2860	0.0000	3.0784	169.4172	37.167
0.78500	-1.58532	0.2770	0.0000	3.0625	169.2987	37.610
0.79000	-6.60809	0.2680	0.0000	3.0466	169.1862	38.053
0.79500	-11.62086	0.2590	0.0000	3.0307	169.0797	38.496
0.80000	-16.62313	0.2500	0.0000	3.0148	168.9792	38.939
0.80500	-21.61440	0.2410	0.0000	3.0000	168.8847	39.382
0.81000	-26.59517	0.2320	0.0000	2.9851	168.7962	39.825
0.81500	-31.56594	0.2230	0.0000	2.9702	168.7137	40.268
0.82000	-36.52721	0.2140	0.0000	2.9553	168.6372	40.711
0.82500	-41.47848	0.2050	0.0000	2.9404	168.5667	41.154
0.83000	-46.41975	0.1960	0.0000	2.9255	168.5022	41.597
0.83500	-51.35102	0.1870	0.0000	2.9106	168.4437	42.040
0.84000	-56.27229	0.1780	0.0000	2.8957	168.3912	42.483
0.84500	-61.18356	0.1690	0.0000	2.8808	168.3447	42.926
0.85000	-66.08483	0.1600	0.0000	2.8659	168.3042	43.369
0.85500	-70.97610	0.1510	0.0000	2.8510	168.2697	43.812
0.86000	-75.85737	0.1420	0.0000	2.8361	168.2412	44.255
0.86500	-80.72864	0.1330	0.0000	2.8212	168.2187	44.698
0.87000	-85.58991	0.1240	0.0000	2.8063	168.1992	45.141
0.87500	-90.44118	0.1150	0.0000	2.7914	168.1817	45.584
0.88000	-95.28245	0.1060	0.0000	2.7765	168.1662	46.027
0.88500	-100.11372	0.0970	0.0000	2.7616	168.1527	46.470
0.89000	-104.93499	0.0880	0.0000	2.7467	168.1412	46.913
0.89500	-109.74626	0.0790	0.0000	2.7318	168.1317	47.356
0.90000	-114.54753	0.0700	0.0000	2.7169	168.1242	47.799
0.90500	-119.33880	0.0610	0.0000	2.7020	168.1187	48.242
0.91000	-124.12007	0.0520	0			

1.90000	440.44004	0.3944	0.00000	2.4444	941.1692	72.517
1.40000	394.14004	0.3402	0.00000	2.4402	901.8711	75.773
1.70000	439.60367	0.4724	0.00000	2.4494	1012.5147	78.504
1.80000	492.77851	0.2520	0.00000	2.4522	1042.0836	80.976
1.90000	555.13334	0.2179	0.00000	2.4544	1049.3141	83.051
2.00000	619.58574	0.1880	0.00000	2.4507	1117.9236	84.849
2.10000	691.14004	0.1645	0.00000	2.4520	1131.4211	86.412
2.20000	766.93749	0.1437	0.00000	2.4522	1151.2936	87.774
2.30000	846.33847	0.1240	0.00000	2.4075	1148.9113	88.967
2.40000	928.70194	0.1108	0.00000	1.9579	1180.4607	90.013
2.50000	1013.56635	0.0978	0.00000	1.9124	1192.7450	90.935
2.60000	1000.53343	0.0845	0.00000	1.8737	1203.4439	91.750
2.70000	89.27399	0.0749	0.00000	1.8439	1212.9204	92.473
2.80000	79.21393	0.0645	0.00000	1.7992	1221.3447	93.115
2.90000	71.02414	0.0611	0.00000	1.7677	1228.4459	93.684
3.00000	63.97124	0.0548	0.00000	1.7376	1235.5900	94.201
3.10000	57.18104	0.0492	0.00000	1.7112	1241.6210	94.661
3.20000	51.45292	0.0443	0.00000	1.6847	1247.6444	95.074
3.30000	46.44543	0.0400	0.00000	1.6589	1251.6342	95.447
3.40000	42.02493	0.0362	0.00000	1.6344	1256.3532	95.784
3.50000	38.11171	0.0328	0.00000	1.6114	1261.3541	96.089
3.60000	34.63944	0.0298	0.00000	1.5901	1261.9892	96.364
3.70000	31.54794	0.0272	0.00000	1.5709	1267.2944	96.618
3.80000	28.79114	0.0248	0.00000	1.5524	1270.3109	96.844
3.90000	26.32632	0.0227	0.00000	1.5343	1273.0635	97.054
4.00000	24.11743	0.0204	0.00000	1.5169	1275.5447	97.240
4.10000	22.13341	0.0191	0.00000	1.5004	1277.8955	97.404
4.20000	20.34791	0.0175	0.00000	1.4844	1280.0140	97.544
4.30000	18.73741	0.0161	0.00000	1.4689	1281.9759	97.737
4.40000	17.24222	0.0149	0.00000	1.4570	1283.7797	97.874
4.50000	15.84449	0.0137	0.00000	1.4452	1285.4319	98.001
4.60000	14.54941	0.0127	0.00000	1.4337	1286.9477	98.118
4.70000	13.34814	0.0114	0.00000	1.4222	1288.3455	98.224
4.80000	12.24947	0.0109	0.00000	1.4109	1289.7074	98.327
4.90000	11.24934	0.0102	0.00000	1.4002	1290.9313	98.420
5.00000	10.34907	0.0094	0.00000	1.3894	1292.0649	98.507
5.10000	10.51722	0.0084	0.00000	1.3784	1293.1277	98.584
5.20000	9.72747	0.0072	0.00000	1.3672	1294.1144	98.663
5.30000	8.98747	0.0077	0.00000	1.3560	1295.0341	98.733
5.40000	8.31337	0.0072	0.00000	1.3451	1295.8951	98.799
5.50000	7.74444	0.0067	0.00000	1.3344	1296.6993	98.860
5.60000	7.24593	0.0061	0.00000	1.3232	1297.4472	98.917
5.70000	6.81143	0.0059	0.00000	1.3122	1298.1574	98.971
5.80000	6.43144	0.0055	0.00000	1.3014	1298.8397	99.022
5.90000	6.02344	0.0052	0.00000	1.2909	1299.4412	99.049
6.00000	5.64444	0.0049	0.00000	1.2807	1300.0254	99.114
6.10000	5.31177	0.0044	0.00000	1.2704	1300.5700	99.156
6.20000	5.02243	0.0040	0.00000	1.2604	1301.0925	99.195
6.30000	4.73491	0.0041	0.00000	1.2511	1301.6403	99.232
6.40000	4.44913	0.0034	0.00000	1.2417	1302.2044	99.267
6.50000	4.22444	0.0034	0.00000	1.2324	1302.7477	99.300
6.60000	3.94919	0.0034	0.00000	1.2233	1303.2441	99.332
6.70000	3.71374	0.0032	0.00000	1.2144	1303.7127	99.361
6.80000	3.51234	0.0031	0.00000	1.2054	1304.1474	99.389
6.90000	3.34414	0.0029	0.00000	1.1969	1304.5441	99.418

7.00000	3.20410	0.0024	0.00000	1.1884	1304.9174	99.441
7.10000	3.04344	0.0024	0.00000	1.1791	1305.2631	99.465
7.20000	2.84434	0.0025	0.00000	1.1700	1305.6044	99.487
7.30000	2.64451	0.0024	0.00000	1.1614	1305.9242	99.509
7.40000	2.44487	0.0022	0.00000	1.1524	1306.2454	99.529
7.50000	2.24513	0.0021	0.00000	1.1439	1306.5303	99.549
7.60000	2.04543	0.0020	0.00000	1.1352	1306.8224	99.567
7.70000	1.84544	0.0019	0.00000	1.1264	1307.1024	99.585
7.80000	1.64544	0.0018	0.00000	1.1179	1307.3721	99.601
7.90000	1.44544	0.0014	0.00000	1.1094	1307.6314	99.617
8.00000	1.24544	0.0017	0.00000	1.1004	1307.8811	99.632
8.10000	1.04544	0.0014	0.00000	1.0914	1308.1215	99.647
8.20000	0.84544	0.0014	0.00000	1.0824	1308.3533	99.661
8.30000	0.64544	0.0014	0.00000	1.0734	1308.5749	99.674
8.40000	0.44544	0.0011	0.00000	1.0644	1308.7915	99.687
8.50000	0.24544	0.0011	0.00000	1.0554	1309.0033	99.699
8.60000	0.04544	0.0012	0.00000	1.0464	1309.2153	99.710
8.70000	0.04544	0.0012	0.00000	1.0374	1309.4246	99.721
8.80000	0.04544	0.0012	0.00000	1.0284	1309.6317	99.732
8.90000	0.04544	0.0011	0.00000	1.0194	1309.8379	99.742
9.00000	0.04544	0.0011	0.00000	1.0104	1310.0441	99.752
9.10000	0.04544	0.0010	0.00000	1.0014	1310.2411	99.761
9.20000	0.04544	0.0010	0.00000	0.9924	1310.4384	99.770
9.30000	0.04544	0.0010	0.00000	0.9834	1310.6354	99.779
9.40000	0.04544	0.0009	0.00000	0.9744	1310.8324	99.787
9.50000	0.04544	0.0009	0.00000	0.9654	1311.0294	99.795
9.60000	0.04544	0.0009	0.00000	0.9564	1311.2264	99.803
9.70000	0.04544	0.0009	0.00000	0.9474	1311.4234	99.810
9.80000	0.04544	0.0009	0.00000	0.9384	1311.6204	99.817
9.90000	0.04544	0.0009	0.00000	0.9294	1311.8174	99.824
10.00000	0.04544	0.0007	0.00000	0.9204	1312.0144	99.830
10.10000	0.04544	0.0007	0.00000	0.9114	1312.2114	99.837
10.20000	0.04544	0.0007	0.00000	0.9024	1312.4084	99.843
10.30000	0.04544	0.0004	0.00000	0.8934	1312.6054	99.849
10.40000	0.04544	0.0004	0.00000	0.8844	1312.8024	99.854
10.50000	0.04544	0.0004	0.00000	0.8754	1313.0004	99.859
10.60000	0.04544	0.0004	0.00000	0.8664	1313.1974	99.864
10.70000	0.04544	0.0004	0.00000	0.8574	1313.3944	99.870
10.80000	0.04544	0.0005	0.00000	0.8484	1313.5914	99.875
10.90000	0.04544	0.0005	0.00000	0.8394	1313.7884	99.879
11.00000	0.04544	0.0005	0.00000	0.8304	1313.9854	99.884
11.10000	0.04544	0.0005	0.00000	0.8214	1314.1824	99.888
11.20000	0.04544	0.0005	0.00000	0.8124	1314.3794	99.892
11.30000	0.04544	0.0004	0.00000	0.8034	1314.5764	99.894
11.40000	0.04544	0.0004	0.00000	0.7944	1314.7734	99.894
11.50000	0.04544	0.0004	0.00000	0.7854	1314.9704	99.894
11.60000	0.04544	0.0004	0.00000	0.7764	1315.1674	99.894
11.70000	0.04544	0.0004	0.00000	0.7674	1315.3644	99.894
11.80000	0.04544	0.0004	0.00000	0.7584	1315.5614	99.894
11.90000	0.04544	0.0004	0.00000	0.7494	1315.7584	99.894
12.00000	0.04544	0.0004	0.00000	0.7404	1315.9554	99.894

VISIBILITY AND OTHER DATA FOR PLANCH RADIATOR, MECHANICS DIVISION, U.S. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3474.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3950.0  
DEGREES FAHRENHEIT = 6450.9

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 340.61 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 79044.33 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 23225.24 CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.247 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 219.217 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 52.846 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7137 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.7204 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 1340.22 WATT/CM<sup>2</sup> OR 1.34022E+10 ERG/SEC/CM<sup>2</sup> OR 3.20441E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1234.03 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, WATT/CM<sup>2</sup> PER MICRON \* RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (4) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA:  $\Delta E = E \cdot M \cdot \Delta T / T$

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3474.8 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 3950.0  
DEGREES FAHRENHEIT = 6450.9

WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR WATON	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	215.44541	0.1742	0.0000	10.4054	9.7711	0.700
0.35500	232.54810	0.1870	0.0000	10.2540	10.4036	0.760
0.36000	251.04043	0.2020	0.0000	10.1144	12.1001	0.877
0.36500	269.12044	0.2144	0.0000	9.9770	13.3954	0.971
0.37000	286.84540	0.2315	0.0000	9.8432	14.7822	1.071
0.37500	304.42944	0.2440	0.0000	9.7120	16.2627	1.178
0.38000	321.03454	0.2625	0.0000	9.5843	17.8302	1.292
0.38500	336.42900	0.2744	0.0000	9.4599	19.5137	1.414
0.39000	350.44924	0.2848	0.0000	9.3387	21.2441	1.542
0.39500	363.41854	0.3113	0.0000	9.2206	23.1439	1.678
0.40000	376.13454	0.3191	110.4497	9.1054	25.1427	1.829
0.40500	387.45015	0.3450	212.3170	8.9931	27.2247	1.973
0.41000	398.23515	0.3621	345.7599	8.8816	29.4139	2.131
0.41500	408.53525	0.3723	502.4247	8.7767	31.7043	2.297
0.42000	418.45274	0.3846	673.3914	8.6726	34.1005	2.471
0.42500	427.45070	0.4139	854.3105	8.5705	36.6140	2.653
0.43000	435.92277	0.4317	1041.2150	8.4710	39.2341	2.843
0.43500	443.54364	0.4487	1244.5108	8.3738	41.9579	3.040
0.44000	450.70905	0.4641	1464.3599	8.2780	44.7895	3.245
0.44500	457.51571	0.4835	1699.1743	8.1840	47.7245	3.459
0.45000	463.91167	0.5007	1859.5141	8.0915	50.7747	3.679
0.45500	469.16507	0.5170	2036.2471	8.0004	53.9274	3.907
0.46000	474.28927	0.5349	2229.2483	7.9104	57.1861	4.143
0.46500	479.19310	0.5518	2437.2813	7.8249	60.5496	4.387
0.47000	483.91154	0.5686	2659.0444	7.7414	64.0177	4.638
0.47500	488.45070	0.5851	2894.1801	7.6595	67.5905	4.897
0.48000	492.82907	0.6015	3142.4197	7.5790	71.2612	5.163
0.48500	496.98340	0.6174	3404.9522	7.4994	75.0344	5.436
0.49000	500.93444	0.6335	3681.2487	7.4214	78.9145	5.717
0.49500	504.69440	0.6491	3971.7123	7.3444	82.8952	5.999
0.50000	508.27344	0.6644	4276.7110	7.2684	86.9717	6.280
0.50500	511.69271	0.6795	4596.5291	7.1934	91.1413	6.560
0.51000	514.95177	0.6942	4931.7290	7.1194	95.3915	6.839
0.51500	517.97444	0.7087	5282.7805	7.0464	99.7245	7.117
0.52000	520.78320	0.7228	5649.6101	6.9744	104.1465	7.394
0.52500	523.39444	0.7364	6032.7150	6.9034	108.6538	7.671
0.53000	525.81941	0.7501	6432.3170	6.8334	113.2555	7.947
0.53500	528.06010	0.7632	6848.0435	6.7644	117.9594	8.223
0.54000	530.14444	0.7760	7279.5943	6.6964	122.6635	8.498
0.54500	532.08440	0.7884	7727.5741	6.6294	127.3635	8.773
0.55000	533.89444	0.8004	8192.5745	6.5634	132.0535	9.047
0.55500	535.57447	0.8121	8674.1707	6.4984	136.7344	9.320
0.56000	537.13444	0.8234	9172.0433	6.4344	141.4044	9.592
0.56500	538.57440	0.8344	9686.8433	6.3714	146.0644	9.863
0.57000	539.90444	0.8449	10218.2433	6.3094	150.7144	10.133
0.57500	541.13444	0.8549	10765.8433	6.2484	155.3544	10.402
0.58000	542.26444	0.8644	11329.2433	6.1884	159.9844	10.670
0.58500	543.30444	0.8734	11908.0433	6.1294	164.6044	10.937
0.59000	544.25444	0.8819	12502.0433	6.0714	169.2144	11.202
0.59500	545.12444	0.8900	13111.8433	6.0144	173.8144	11.466
0.60000	545.91444	0.8976	13737.0433	5.9584	178.4044	11.728

0.57500	1058.44444	0.4551	458449.4135	4.3844	158.0073	11.454
0.58000	1070.79344	0.4644	461341.4244	4.2907	163.4211	11.840
0.58500	1082.47574	0.4744	464130.2334	4.2777	168.8044	12.230
0.59000	1093.89414	0.4834	466990.0144	4.1154	174.2441	12.624
0.59500	1104.44034	0.4921	471941.2324	4.1141	179.7404	13.023
0.60000	1114.74644	0.5004	478315.4042	4.0617	185.2884	13.425
0.60500	1124.54424	0.5084	483595.1031	4.0341	190.4873	13.830
0.61000	1133.97019	0.5159	487463.1662	5.0454	194.5319	14.239
0.61500	1142.96500	0.5232	492734.3508	5.0174	202.2242	14.652
0.62000	1151.39401	0.5300	498103.1604	5.0004	207.9622	15.067
0.62500	1159.44197	0.5344	503042.9934	5.0441	213.7194	15.484
0.63000	1167.05401	0.5427	507973.1327	5.0944	219.5558	15.907
0.63500	1174.23547	0.5485	512770.2087	5.1737	225.4062	16.331
0.64000	1180.99244	0.5519	516538.1244	5.2084	231.2714	16.754
0.64500	1187.33123	0.5500	519181.1627	5.4442	237.2144	17.147
0.65000	1193.25777	0.5634	52071.4355	5.4234	243.1701	17.614
0.65500	1198.77894	0.5644	46028.7417	5.4414	249.1563	18.051
0.66000	1203.90140	0.5724	46937.4383	5.4401	255.1572	18.487
0.66500	1208.43244	0.5744	46944.1649	5.4994	261.1447	18.924
0.67000	1212.97994	0.5794	46394.4427	5.4594	267.2429	19.362
0.67500	1216.95014	0.5830	46013.1009	5.4194	273.3174	19.802
0.68000	1220.54122	0.5844	46109.4721	5.4610	279.4117	20.244
0.68500	1223.70041	0.5844	46022.9134	5.4627	285.5227	20.687
0.69000	1226.67611	0.5900	4619.9461	5.4750	291.6440	21.131
0.69500	1229.21543	0.5929	4744.4394	5.4670	297.7444	21.579
0.70000	1231.41647	0.5947	4633.1547	5.2313	303.8444	22.021
0.70500	1233.20743	0.5962	4637.0424	5.1953	310.1025	22.464
0.71000	1234.83572	0.5974	4741.3444	5.1554	316.2710	22.915
0.71500	1236.40444	0.5944	4740.7904	5.1244	322.4401	23.362
0.72000	1236.90444	0.5902	474.2734	5.0904	328.6131	23.810
0.72500	1237.62444	0.5907	449.1094	5.0544	334.8194	24.258
0.73000	1237.94237	0.5900	470.9072	5.0210	341.1040	24.707
0.73500	1238.01641	1.0000	334.7404	5.0544	347.3744	25.155
0.74000	1237.74400	0.5904	252.5174	4.9574	353.3844	25.604
0.74500	1237.10747	0.5944	168.2734	4.9244	359.5744	26.052
0.75000	1236.54944	0.5984	48.8440	4.8914	365.7412	26.500
0.75500	1236.31344	0.5970	0.0000	4.8410	370.1144	26.948
0.76000	1231.11440	0.5944	0.0000	4.7717	374.4441	27.395
0.76500	1227.01297	0.5911	0.0000	4.7117	378.7444	27.843
0.77000	1222.11242	0.5877	0.0000	4.6542	382.7356	28.290
0.77500	1214.41147	0.5825	0.0000	4.6007	387.1744	28.738
0.78000	1209.94414	0.5773	0.0000	4.5467	391.3040	29.186
0.78500	1202.44414	0.5714	0.0000	4.4941	395.1729	29.634
0.79000	1195.16244	0.5654	0.0000	4.4429	398.3617	30.082
0.79500	1184.44444	0.5587	0.0000	4.3930	401.2743	30.530
0.80000	1174.02344	0.5515	0.0000	4.3443	404.0891	30.978
0.80500	1164.40414	0.5440	0.0000	4.2969	406.8311	31.426
0.81000	1154.92474	0.5361	0.0000	4.2504	409.4710	31.874
0.81500	1148.74414	0.5279	0.0000	4.2054	412.0113	32.322
0.82000	1134.14492	0.5194	0.0000	4.1614	414.4441	32.770
0.82500	1127.10460	0.5104	0.0000	4.1184	416.7730	33.218
0.83000	1114.12124	0.5014	0.0000	4.0765	418.9944	33.666
0.83500	1104.44442	0.4923	0.0000	4.0355	421.0944	34.114
0.84000	1092.24904	0.4824	0.0000	3.9954	423.0879	34.562
0.84500	1081.04304	0.4732	0.0000	3.9564	424.9517	35.010

0.85000	1064.97359	0.4634	0.0000	3.9142	426.7014	35.458
0.85500	1054.74444	0.4534	0.0000	3.8709	428.3327	35.906
0.86000	1044.34444	0.4434	0.0000	3.8444	429.4374	36.354
0.86500	1031.84021	0.4334	0.0000	3.8044	431.2197	36.802
0.87000	1019.26444	0.4234	0.0000	3.7739	431.4743	37.250
0.87500	1006.40931	0.4131	0.0000	3.7494	431.4014	37.698
0.88000	991.90011	0.4024	0.0000	3.7204	431.4063	38.146
0.88500	981.14444	0.3925	0.0000	3.6734	431.4814	38.594
0.89000	964.34044	0.3822	0.0000	3.6414	431.2294	39.042
0.89500	954.42140	0.3719	0.0000	3.6114	430.8494	39.490
0.90000	942.44444	0.3614	0.0000	3.5799	430.3614	39.938
0.90500	930.12221	0.3511	0.0000	3.5500	429.7047	40.386
0.91000	917.41724	0.3414	0.0000	3.5204	428.9444	40.834
0.91500	904.74712	0.3314	0.0000	3.4919	428.0552	41.282
0.92000	892.15109	0.3204	0.0000	3.4637	427.0397	41.730
0.92500	879.41102	0.3104	0.0000	3.4361	425.9885	42.178
0.93000	867.14311	0.3004	0.0000	3.4090	424.8322	42.626
0.93500	854.75607	0.2904	0.0000	3.3824	423.5814	43.074
0.94000	842.44714	0.2804	0.0000	3.3564	422.2474	43.522
0.94500	830.25209	0.2704	0.0000	3.3311	420.8911	43.970
0.95000	814.14944	0.2604	0.0000	3.3064	419.4310	44.418
0.95500	804.14241	0.2512	0.0000	3.2814	417.8844	44.866
0.96000	794.24444	0.2414	0.0000	3.2574	416.2544	45.314
0.96500	782.44942	0.2320	0.0000	3.2340	414.5401	45.762
0.97000	770.44414	0.2224	0.0000	3.2104	412.7444	46.210
0.97500	759.11741	0.2131	0.0000	3.1841	410.8744	46.658
0.98000	747.91412	0.2041	0.0000	3.1554	408.9444	47.106
0.98500	734.44414	0.1944	0.0000	3.1439	407.0244	47.554
0.99000	725.50244	0.1844	0.0000	3.1224	405.0444	48.002
0.99500	714.44444	0.1771	0.0000	3.1014	403.0144	48.450
1.00000	703.62344	0.1683	0.0000	3.0807	401.0172	48.898
1.00500	692.88817	0.1597	0.0000	3.0603	399.0444	49.346
1.01000	682.29044	0.1511	0.0000	3.0407	397.1744	49.794
1.01500	671.43244	0.1427	0.0000	3.0207	395.2444	50.242
1.02000	661.51374	0.1343	0.0000	3.0014	393.2594	50.690
1.02500	651.33544	0.1261	0.0000	2.9825	391.2197	51.138
1.03000	641.24722	0.1180	0.0000	2.9639	389.1444	51.586
1.03500	631.10977	0.1100	0.0000	2.9455	387.0444	52.034
1.04000	621.04291	0.1021	0.0000	2.9274	384.9144	52.482
1.04500	611.02644	0.0944	0.0000	2.9099	382.7444	52.930
1.05000	602.54994	0.0867	0.0000	2.8924	380.5444	53.378
1.05500	593.21204	0.0792	0.0000	2.8754	378.3144	53.826
1.06000	584.01491	0.0717	0.0000	2.8584	376.0444	54.274
1.06500	574.95507	0.0644	0.0000	2.8429	373.7444	54.722
1.07000	566.01254	0.0570	0.0000	2.8257	371.4144	55.170
1.07500	557.24650	0.0491	0.0000	2.8097	369.0444	55.618
1.08000	548.59447	0.0417	0.0000	2.7934	366.6444	56.066
1.08500	540.07944	0.0347	0.0000	2.7784	364.2144	56.514
1.09000	531.69647	0.0295	0.0000	2.7637	361.7444	56.962
1.09500	523.44437	0.0224	0.0000	2.7481	359.2444	57.410
1.10000	515.32444	0.0169	0.0000	2.7334	356.7144	57.858
1.10500	507.33371	0.0094	0.0000	2.7184	354.1444	58.306
1.11000	499.47051	0.0034	0.0000	2.7044	351.5444	58.754
1.11500	491.73390	0.0000	0.0000	2.6904	348.9144	59.202
1.12000	484.12234	0.0000	0.0000	2.6744	346.2444	59.650



1.50000	478.43437	0.3850	0.00000	2.4848	1019.0741	73.182
1.60000	408.20934	0.1297	0.00000	2.4364	1058.2212	74.181
1.70000	350.40021	0.2830	0.00000	2.4272	1092.0714	75.123
1.80000	301.44444	0.2434	0.00000	2.3315	1124.4344	81.480
1.90000	260.51679	0.2104	0.00000	2.2473	1152.6548	83.519
2.00000	225.77307	0.1824	0.00000	2.1724	1178.9208	85.270
2.10000	196.35460	0.1586	0.00000	2.1040	1197.9870	86.797
2.20000	171.18443	0.1384	0.00000	2.0402	1214.1874	88.127
2.30000	150.11444	0.1213	0.00000	1.9794	1227.3472	89.289
2.40000	131.94034	0.1064	0.00000	1.9434	1246.4644	90.309
2.50000	116.35754	0.0940	0.00000	1.9492	1249.8174	91.207
2.60000	102.95084	0.0832	0.00000	1.8547	1272.5124	92.001
2.70000	91.37701	0.0734	0.00000	1.8214	1284.1374	93.324
2.80000	81.35137	0.0657	0.00000	1.7874	1295.4244	94.384
2.90000	72.43804	0.0587	0.00000	1.7560	1302.7022	95.238
3.00000	65.04074	0.0525	0.00000	1.7264	1309.8667	95.994
3.10000	58.30570	0.0472	0.00000	1.6994	1314.4045	96.594
3.20000	52.54474	0.0425	0.00000	1.6747	1319.4031	97.021
3.30000	47.43574	0.0383	0.00000	1.6513	1324.9147	97.217
3.40000	42.90487	0.0347	0.00000	1.6294	1328.0021	97.405
3.50000	38.90389	0.0314	0.00000	1.6080	1331.7114	97.730
3.60000	35.34902	0.0284	0.00000	1.5871	1335.0841	97.954
3.70000	32.18742	0.0260	0.00000	1.5674	1338.1403	98.154
3.80000	29.36854	0.0237	0.00000	1.5484	1340.9444	98.302
3.90000	26.84871	0.0217	0.00000	1.5304	1343.5447	98.414
4.00000	24.59114	0.0199	0.00000	1.5134	1345.9444	98.494
4.10000	22.54414	0.0182	0.00000	1.4974	1348.0444	98.544
4.20000	20.74020	0.0164	0.00000	1.4824	1349.8444	98.574
4.30000	19.09549	0.0154	0.00000	1.4684	1351.4444	98.594
4.40000	17.60972	0.0142	0.00000	1.4544	1352.8444	98.604
4.50000	16.26469	0.0131	0.00000	1.4404	1354.0444	98.614
4.60000	15.04490	0.0122	0.00000	1.4274	1355.0444	98.624
4.70000	13.93449	0.0113	0.00000	1.4144	1355.8444	98.634
4.80000	12.92411	0.0104	0.00000	1.4024	1356.4444	98.644
4.90000	12.00446	0.0097	0.00000	1.3914	1356.8444	98.654
5.00000	11.18412	0.0090	0.00000	1.3804	1357.0444	98.664
5.10000	10.40134	0.0084	0.00000	1.3694	1357.1444	98.674
5.20000	9.69811	0.0074	0.00000	1.3584	1357.2444	98.684
5.30000	9.05304	0.0073	0.00000	1.3474	1357.3444	98.694
5.40000	8.46054	0.0064	0.00000	1.3364	1357.4444	98.704
5.50000	7.91542	0.0064	0.00000	1.3254	1357.5444	98.714
5.60000	7.41352	0.0060	0.00000	1.3144	1357.6444	98.724
5.70000	6.94044	0.0054	0.00000	1.3034	1357.7444	98.734
5.80000	6.52303	0.0053	0.00000	1.2924	1357.8444	98.744
5.90000	6.12777	0.0049	0.00000	1.2814	1357.9444	98.754
6.00000	5.74104	0.0047	0.00000	1.2704	1358.0444	98.764
6.10000	5.37284	0.0044	0.00000	1.2594	1358.1444	98.774
6.20000	5.01830	0.0041	0.00000	1.2484	1358.2444	98.784
6.30000	4.68144	0.0039	0.00000	1.2374	1358.3444	98.794
6.40000	4.36444	0.0037	0.00000	1.2264	1358.4444	98.804
6.50000	4.06777	0.0035	0.00000	1.2154	1358.5444	98.814
6.60000	3.79427	0.0033	0.00000	1.2044	1358.6444	98.824
6.70000	3.54667	0.0031	0.00000	1.1934	1358.7444	98.834
6.80000	3.31149	0.0029	0.00000	1.1824	1358.8444	98.844
6.90000	3.08719	0.0024	0.00000	1.1714	1358.9444	98.854
7.00000	2.87312	0.0024	0.00000	1.1604	1359.0444	98.864
7.10000	2.66932	0.0025	0.00000	1.1494	1359.1444	98.874
7.20000	2.47654	0.0024	0.00000	1.1384	1359.2444	98.884
7.30000	2.29404	0.0023	0.00000	1.1274	1359.3444	98.894
7.40000	2.12154	0.0021	0.00000	1.1164	1359.4444	98.904
7.50000	1.95854	0.0020	0.00000	1.1054	1359.5444	98.914
7.60000	1.80454	0.0019	0.00000	1.0944	1359.6444	98.924
7.70000	1.65914	0.0018	0.00000	1.0834	1359.7444	98.934
7.80000	1.52172	0.0014	0.00000	1.0724	1359.8444	98.944
7.90000	1.39172	0.0017	0.00000	1.0614	1359.9444	98.954
8.00000	1.26799	0.0014	0.00000	1.0504	1360.0444	98.964
8.10000	1.14971	0.0015	0.00000	1.0394	1360.1444	98.974
8.20000	1.03641	0.0015	0.00000	1.0284	1360.2444	98.984
8.30000	0.92804	0.0014	0.00000	1.0174	1360.3444	98.994
8.40000	0.82412	0.0013	0.00000	1.0064	1360.4444	99.004
8.50000	0.72410	0.0013	0.00000	0.9954	1360.5444	99.014
8.60000	0.62810	0.0012	0.00000	0.9844	1360.6444	99.024
8.70000	0.53674	0.0012	0.00000	0.9734	1360.7444	99.034
8.80000	0.44974	0.0011	0.00000	0.9624	1360.8444	99.044
8.90000	0.36664	0.0011	0.00000	0.9514	1360.9444	99.054
9.00000	0.28704	0.0010	0.00000	0.9404	1361.0444	99.064
9.10000	0.21002	0.0010	0.00000	0.9294	1361.1444	99.074
9.20000	0.13644	0.0009	0.00000	0.9184	1361.2444	99.084
9.30000	0.06711	0.0009	0.00000	0.9074	1361.3444	99.094
9.40000	0.00172	0.0009	0.00000	0.8964	1361.4444	99.104
9.50000	0.00000	0.0008	0.00000	0.8854	1361.5444	99.114
9.60000	0.00000	0.0008	0.00000	0.8744	1361.6444	99.124
9.70000	0.00000	0.0007	0.00000	0.8634	1361.7444	99.134
9.80000	0.00000	0.0007	0.00000	0.8524	1361.8444	99.144
9.90000	0.00000	0.0007	0.00000	0.8414	1361.9444	99.154
10.00000	0.00000	0.0007	0.00000	0.8304	1362.0444	99.164
10.10000	0.00000	0.0007	0.00000	0.8194	1362.1444	99.174
10.20000	0.00000	0.0006	0.00000	0.8084	1362.2444	99.184
10.30000	0.00000	0.0006	0.00000	0.7974	1362.3444	99.194
10.40000	0.00000	0.0006	0.00000	0.7864	1362.4444	99.204
10.50000	0.00000	0.0006	0.00000	0.7754	1362.5444	99.214
10.60000	0.00000	0.0006	0.00000	0.7644	1362.6444	99.224
10.70000	0.00000	0.0005	0.00000	0.7534	1362.7444	99.234
10.80000	0.00000	0.0005	0.00000	0.7424	1362.8444	99.244
10.90000	0.00000	0.0005	0.00000	0.7314	1362.9444	99.254
11.00000	0.00000	0.0005	0.00000	0.7204	1363.0444	99.264
11.10000	0.00000	0.0005	0.00000	0.7094	1363.1444	99.274
11.20000	0.00000	0.0004	0.00000	0.6984	1363.2444	99.284
11.30000	0.00000	0.0004	0.00000	0.6874	1363.3444	99.294
11.40000	0.00000	0.0004	0.00000	0.6764	1363.4444	99.304
11.50000	0.00000	0.0004	0.00000	0.6654	1363.5444	99.314
11.60000	0.00000	0.0004	0.00000	0.6544	1363.6444	99.324
11.70000	0.00000	0.0004	0.00000	0.6434	1363.7444	99.334
11.80000	0.00000	0.0004	0.00000	0.6324	1363.8444	99.344
11.90000	0.00000	0.0004	0.00000	0.6214	1363.9444	99.354
12.00000	0.00000	0.0003	0.00000	0.6104	1364.0444	99.364

VISIBILITY AND OTHER DATA FOR PLANK RADIATION, MECHANICS DIVISION, U.S. UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3724.8 DEGREES CENTIGRADE FROM THE FOLLOWING TABLE. DEGREES K = 4000.0  
DEGREES FAHRENHEIT = 6780.2

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 148.30 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 7013.54 LUMENS/CM<sup>2</sup>.

THE LUMINANCE (1/PI OF TOTAL VISIBLE FLUX) IS 25149.01 CANDLE/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.254.

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 210.840 LUMENS/WATT.

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 54.521 LUMENS/WATT.

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7285 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.9130 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 1451.48 WATT/CM<sup>2</sup> OR 1.451480000 POWER PER CM<sup>2</sup> OR 1.444330001 kcal/sec/cm<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1314.19 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE X VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (%) CAN BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = 4.0000.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3724.8 DEGREES CENTIGRADE FROM THE FOLLOWING TABLE. DEGREES K = 4000.0  
DEGREES FAHRENHEIT = 6780.2

WAVELENGTH MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE CORRECTION	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	285.40014	0.1883	0.0000	11.2754	11.3141	0.780
0.36000	248.81115	0.1606	0.0000	12.1437	12.3889	0.867
0.37000	203.40244	0.1313	0.0000	12.9400	13.9592	0.962
0.38000	161.73409	0.1047	0.0000	13.6733	15.4279	1.063
0.39000	124.17409	0.0807	0.0000	14.3472	16.9875	1.171
0.40000	100.00000	0.0645	0.0000	14.9617	18.6704	1.284
0.41000	80.00000	0.0516	0.0000	15.5166	20.4890	1.409
0.42000	64.00000	0.0413	0.0000	16.0117	22.3351	1.539
0.43000	51.20000	0.0329	0.0000	16.4466	24.1307	1.674
0.44000	40.96000	0.0262	0.0000	16.8211	25.8772	1.821
0.45000	32.76800	0.0211	0.0000	17.1354	27.5841	1.974
0.46000	26.11200	0.0168	0.0000	17.3897	29.2514	2.134
0.47000	20.73600	0.0133	0.0000	17.5839	30.8784	2.304
0.48000	16.42880	0.0106	0.0000	17.7279	32.4644	2.480
0.49000	13.14304	0.0085	0.0000	17.8314	34.0084	2.664
0.50000	10.71440	0.0069	0.0000	17.8944	35.5104	2.857
0.51000	8.57152	0.0055	0.0000	17.9269	36.9704	3.054
0.52000	6.67776	0.0043	0.0000	17.9289	38.3884	3.266
0.53000	5.00000	0.0032	0.0000	17.8994	39.7544	3.483
0.54000	3.63552	0.0023	0.0000	17.8374	41.0684	3.707
0.55000	2.63168	0.0017	0.0000	17.7429	42.3204	3.939
0.56000	1.91424	0.0012	0.0000	17.6154	43.5104	4.180
0.57000	1.40992	0.0009	0.0000	17.4544	44.6384	4.434
0.58000	1.06304	0.0007	0.0000	17.2584	45.7044	4.693
0.59000	0.79072	0.0005	0.0000	17.0274	46.7084	4.967
0.60000	0.59776	0.0004	0.0000	16.7614	47.6494	5.254
0.61000	0.44096	0.0003	0.0000	16.4604	48.5264	5.554
0.62000	0.32768	0.0002	0.0000	16.1244	49.3384	5.867
0.63000	0.24544	0.0001	0.0000	15.7524	50.0844	6.193
0.64000	0.18016	0.0001	0.0000	15.3444	50.7644	6.534
0.65000	0.13472	0.0000	0.0000	14.8994	51.3784	6.889
0.66000	0.10208	0.0000	0.0000	14.4264	51.9264	7.259
0.67000	0.07616	0.0000	0.0000	13.9244	52.4084	7.644
0.68000	0.05632	0.0000	0.0000	13.3924	52.8244	8.044
0.69000	0.04192	0.0000	0.0000	12.8294	53.1744	8.459
0.70000	0.03136	0.0000	0.0000	12.2344	53.4584	8.889
0.71000	0.02304	0.0000	0.0000	11.6064	53.6764	9.334
0.72000	0.01696	0.0000	0.0000	10.9444	53.8284	9.794
0.73000	0.01280	0.0000	0.0000	10.3464	53.9144	10.269
0.74000	0.00944	0.0000	0.0000	9.8114	53.9344	10.759
0.75000	0.00696	0.0000	0.0000	9.3384	53.8884	11.264
0.76000	0.00512	0.0000	0.0000	8.9244	53.7744	11.784
0.77000	0.00384	0.0000	0.0000	8.5664	53.5944	12.319
0.78000	0.00288	0.0000	0.0000	8.2614	53.3484	12.869
0.79000	0.00216	0.0000	0.0000	7.9994	53.0344	13.434
0.80000	0.00160	0.0000	0.0000	7.7714	52.6544	14.014
0.81000	0.00118	0.0000	0.0000	7.5764	52.2084	14.609
0.82000	0.00088	0.0000	0.0000	7.4024	51.6944	15.219
0.83000	0.00066	0.0000	0.0000	7.2474	51.1144	15.844
0.84000	0.00049	0.0000	0.0000	7.1094	50.4684	16.484
0.85000	0.00037	0.0000	0.0000	6.9864	49.7544	17.139
0.86000	0.00028	0.0000	0.0000	6.8764	48.9744	17.809
0.87000	0.00021	0.0000	0.0000	6.7774	48.1284	18.494
0.88000	0.00016	0.0000	0.0000	6.6874	47.2144	19.194
0.89000	0.00012	0.0000	0.0000	6.6044	46.2344	19.909
0.90000	0.00009	0.0000	0.0000	6.5264	45.1884	20.639
0.91000	0.00007	0.0000	0.0000	6.4524	44.0744	21.384
0.92000	0.00005	0.0000	0.0000	6.3814	42.8944	22.144
0.93000	0.00004	0.0000	0.0000	6.3124	41.6484	22.919
0.94000	0.00003	0.0000	0.0000	6.2444	40.3344	23.709
0.95000	0.00002	0.0000	0.0000	6.1764	38.9544	24.514
0.96000	0.00001	0.0000	0.0000	6.1084	37.5084	25.334
0.97000	0.00001	0.0000	0.0000	6.0394	35.9944	26.169
0.98000	0.00000	0.0000	0.0000	5.9684	34.4144	27.019
0.99000	0.00000	0.0000	0.0000	5.8944	32.7684	27.884
1.00000	0.00000	0.0000	0.0000	5.8164	31.0544	28.764

0.57800	1184.01130	0.8000	713081.9214	8.1000	174.4211	12.017
0.58000	1184.40015	0.8000	685100.5094	8.1000	181.1385	12.014
0.58500	1170.20111	0.8000	650150.2015	8.1000	191.0000	12.015
0.59000	1161.01017	0.8000	609200.8717	8.1000	191.0000	12.020
0.59500	1192.47466	0.8000	563543.5249	8.1000	197.4217	12.020
0.60000	1202.93337	0.8000	516111.7411	8.1000	203.4102	12.020
0.60500	1212.60047	0.8000	467560.0207	8.1000	209.4092	12.020
0.61000	1222.07444	0.8000	417000.1544	8.1000	215.4101	12.020
0.61500	1230.90643	0.8000	369142.2117	8.1000	222.0091	12.020
0.62000	1239.17979	0.8000	321000.5144	8.1000	228.2052	12.020
0.62500	1247.32040	0.8000	272260.1144	8.1000	234.4421	12.020
0.63000	1254.79460	0.8000	224114.0250	8.1000	240.7170	12.020
0.63500	1261.40942	0.8000	186192.5544	8.1000	247.0003	12.020
0.64000	1268.37129	0.8000	149014.1833	8.1000	253.3149	12.020
0.64500	1274.48747	0.8000	119547.9229	8.1000	259.6021	12.020
0.65000	1280.16609	0.8000	9314.8847	8.1000	266.0701	12.020
0.65500	1284.41410	0.8000	7000.4194	8.1000	272.4012	12.020
0.66000	1290.24021	0.8000	51519.1842	8.1000	278.9125	12.020
0.66500	1294.60205	0.8000	32614.1570	8.1000	285.1049	12.020
0.67000	1298.65001	0.8000	20254.7201	8.1000	291.4701	12.020
0.67500	1302.26651	0.8000	20147.4441	8.1000	298.1000	12.020
0.68000	1305.48404	0.8000	15091.4101	8.1000	304.9001	12.020
0.68500	1308.32510	0.8000	10544.2001	8.1000	311.4150	12.020
0.69000	1310.79245	0.8000	7100.0000	8.1000	317.9029	12.020
0.69500	1312.40742	0.8000	5000.7204	8.1000	324.5021	12.020
0.70000	1314.44774	0.8000	3000.2100	8.1000	331.1111	12.020
0.70500	1316.05261	0.8000	2500.2500	8.1000	337.4000	12.020
0.71000	1317.12077	0.8000	1000.4000	8.1000	344.2711	12.020
0.71500	1317.80092	0.8000	1144.2101	8.1000	350.8000	12.020
0.72000	1318.20121	0.8000	900.7204	8.1000	357.4001	12.020
0.72500	1318.30202	0.8000	627.5544	8.1000	364.0011	12.020
0.73000	1318.20014	0.8000	448.1001	8.1000	370.4127	12.020
0.73500	1317.71524	0.8000	350.4105	8.1000	377.2227	12.020
0.74000	1316.74520	0.8000	200.4000	8.1000	384.0000	12.020
0.74500	1315.40002	0.8000	174.0022	8.1000	390.1010	12.020
0.75000	1314.40104	0.8000	49.1217	8.1000	396.0000	12.020
0.75500	1311.10250	0.8000	0.0000	8.1000	402.0000	12.020
0.76000	1304.40074	0.8000	0.0000	8.1000	408.0000	12.020
0.76500	1301.41001	0.8000	0.0000	8.1000	414.0000	12.020
0.77000	1299.17507	0.8000	0.0000	8.1000	420.0000	12.020
0.77500	1288.44101	0.8000	0.0000	8.1000	426.0000	12.020
0.78000	1280.77107	0.8000	0.0000	8.1000	432.0000	12.020
0.78500	1272.42002	0.8000	0.0000	8.1000	438.0000	12.020
0.79000	1261.44009	0.8000	0.0000	8.1000	444.0000	12.020
0.79500	1251.80051	0.8000	0.0000	8.1000	450.0000	12.020
0.80000	1241.70075	0.8000	0.0000	8.1000	456.0000	12.020
0.80500	1231.21349	0.8000	0.0000	8.1000	462.0000	12.020
0.81000	1222.19514	0.8000	0.0000	8.1000	468.0000	12.020
0.81500	1210.77619	0.8000	0.0000	8.1000	474.0000	12.020
0.82000	1198.99500	0.8000	0.0000	8.1000	480.0000	12.020
0.82500	1184.40000	0.8000	0.0000	8.1000	486.0000	12.020
0.83000	1174.40000	0.8000	0.0000	8.1000	492.0000	12.020
0.83500	1164.40000	0.8000	0.0000	8.1000	498.0000	12.020
0.84000	1154.40000	0.8000	0.0000	8.1000	504.0000	12.020
0.84500	1144.40000	0.8000	0.0000	8.1000	510.0000	12.020
0.85000	1134.40000	0.8000	0.0000	8.1000	516.0000	12.020
0.85500	1124.40000	0.8000	0.0000	8.1000	522.0000	12.020
0.86000	1114.40000	0.8000	0.0000	8.1000	528.0000	12.020
0.86500	1104.40000	0.8000	0.0000	8.1000	534.0000	12.020
0.87000	1094.40000	0.8000	0.0000	8.1000	540.0000	12.020
0.87500	1084.40000	0.8000	0.0000	8.1000	546.0000	12.020
0.88000	1074.40000	0.8000	0.0000	8.1000	552.0000	12.020
0.88500	1064.40000	0.8000	0.0000	8.1000	558.0000	12.020
0.89000	1054.40000	0.8000	0.0000	8.1000	564.0000	12.020
0.89500	1044.40000	0.8000	0.0000	8.1000	570.0000	12.020
0.90000	1034.40000	0.8000	0.0000	8.1000	576.0000	12.020
0.90500	1024.40000	0.8000	0.0000	8.1000	582.0000	12.020
0.91000	1014.40000	0.8000	0.0000	8.1000	588.0000	12.020
0.91500	1004.40000	0.8000	0.0000	8.1000	594.0000	12.020
0.92000	994.40000	0.8000	0.0000	8.1000	600.0000	12.020
0.92500	984.40000	0.8000	0.0000	8.1000	606.0000	12.020
0.93000	974.40000	0.8000	0.0000	8.1000	612.0000	12.020
0.93500	964.40000	0.8000	0.0000	8.1000	618.0000	12.020
0.94000	954.40000	0.8000	0.0000	8.1000	624.0000	12.020
0.94500	944.40000	0.8000	0.0000	8.1000	630.0000	12.020
0.95000	934.40000	0.8000	0.0000	8.1000	636.0000	12.020
0.95500	924.40000	0.8000	0.0000	8.1000	642.0000	12.020
0.96000	914.40000	0.8000	0.0000	8.1000	648.0000	12.020
0.96500	904.40000	0.8000	0.0000	8.1000	654.0000	12.020
0.97000	894.40000	0.8000	0.0000	8.1000	660.0000	12.020
0.97500	884.40000	0.8000	0.0000	8.1000	666.0000	12.020
0.98000	874.40000	0.8000	0.0000	8.1000	672.0000	12.020
0.98500	864.40000	0.8000	0.0000	8.1000	678.0000	12.020
0.99000	854.40000	0.8000	0.0000	8.1000	684.0000	12.020
0.99500	844.40000	0.8000	0.0000	8.1000	690.0000	12.020
1.00000	834.40000	0.8000	0.0000	8.1000	696.0000	12.020

0.95000	1122.40230	0.8000	0.0000	8.1000	444.0710	44.379
0.96000	1104.40200	0.8000	0.0000	8.1000	450.2117	45.141
0.97000	1084.40100	0.8000	0.0000	8.1000	456.2571	45.901
0.98000	1064.40000	0.8000	0.0000	8.1000	462.3071	46.653
0.99000	1044.40000	0.8000	0.0000	8.1000	468.3617	47.404
1.00000	1024.40000	0.8000	0.0000	8.1000	474.4217	48.156
1.01000	1004.40000	0.8000	0.0000	8.1000	480.4871	48.908
1.02000	984.40000	0.8000	0.0000	8.1000	486.5571	49.660
1.03000	964.40000	0.8000	0.0000	8.1000	492.6317	50.412
1.04000	944.40000	0.8000	0.0000	8.1000	498.7071	51.164
1.05000	924.40000	0.8000	0.0000	8.1000	504.7871	51.916
1.06000	904.40000	0.8000	0.0000	8.1000	510.8671	52.668
1.07000	884.40000	0.8000	0.0000	8.1000	516.9471	53.420
1.08000	864.40000	0.8000	0.0000	8.1000	523.0271	54.172
1.09000	844.40000	0.8000	0.0000	8.1000	529.1071	54.924
1.10000	824.40000	0.8000	0.0000	8.1000	535.1871	55.676
1.11000	804.40000	0.8000	0.0000	8.1000	541.2671	56.428
1.12000	784.40000	0.8000	0.0000	8.1000	547.3471	57.180
1.13000	764.40000	0.8000	0.0000	8.1000	553.4271	57.932
1.14000	744.40000	0.8000	0.0000	8.1000	559.5071	58.684
1.15000	724.40000	0.8000	0.0000	8.1000	565.5871	59.436
1.16000	704.40000	0.8000	0.0000	8.1000	571.6671	60.188
1.17000	684.40000	0.8000	0.0000	8.1000	577.7471	60.940
1.18000	664.40000	0.8000	0.0000	8.1000	583.8271	61.692
1.19000	644.40000	0.8000	0.0000	8.1000	589.9071	62.444
1.20000	624.40000	0.8000	0.0000	8.1000	595.9871	63.196
1.21000	604.40000	0.8000	0.0000	8.1000	602.0671	63.948
1.22000	584.40000	0.8000	0.0000	8.1000	608.1471	64.700
1.23000	564.40000	0.8000	0.0000	8.1000	614.2271	65.452
1.24000	544.40000	0.8000	0.0000	8.1000	620.3071	66.204
1.25000	524.40000	0.8000	0.0000	8.1000	626.3871	66.956
1.26000	504.40000	0.8000	0.0000	8.1000	632.4671	67.708
1.27000	484.40000	0.8000	0.0000	8.1000	638.5471	68.460
1.28000	464.40000	0.8000	0.0000	8.1000	644.6271	69.212
1.29000	444.40000	0.8000	0.0000	8.1000	650.7071	69.964
1.30000	424.40000	0.8000	0.0000	8.1000	656.7871	70.716
1.31000	404.40000	0.8000	0.0000	8.1000	662.8671	71.468
1.32000	384.40000	0.8000	0.0000	8.1000	668.9471	72.220
1.33000	364.40000	0.8000	0.0000	8.1000	675.0271	72.972
1.34000	344.40000	0.8000	0.0000	8.1000	681.1071	73.724
1.35000	324.40000	0.8000	0.0000	8.1000	687.1871	74.476
1.36000	304.40000	0.8000	0.0000	8.1000	693.2671	75.228
1.37000	284.40000	0.8000	0.0000	8.1000	699.3471	75.980
1.38000	264.40000	0.8000	0.0000	8.1000	705.4271	76.732
1.39000	244.40000	0.8000	0.0000	8.1000	711.5071	77.484
1.40000	224.40000	0.8000	0.0000	8.1000	717.5871	78.236
1.41000	204.40000	0.8000	0.0000	8.1000	723.6671	78.988
1.42000	184.40000	0.8000	0.0000	8.1000	729.7471	79.740
1.43000	164.40000	0.8000	0.0000	8.1000	735.8271	80.492
1.44000	144.40000	0.8000	0.0000	8.1000	741.9071	81.244
1.45000	124.40000	0.8000	0.0000	8.1000	747.9871	82.000
1.46000	104.40000	0.8000	0.0000	8.1000	754.0671	82.752
1.47000	84.40000	0.8000	0.0000	8.1000	760.1471	83.504
1.48000	64.40					

1.500000	407.79015	0.1718	0.0000	0.0000	1071.5733	71.8284
1.400000	421.14147	0.1194	0.0000	0.0000	1117.1804	78.9700
1.300000	461.21179	0.2740	0.0000	0.0000	1156.2261	79.4300
1.200000	510.55751	0.2154	0.0000	0.0000	1199.7813	81.9700
1.100000	567.95680	0.2012	0.0000	0.0000	1216.4073	83.9584
1.000000	612.00361	0.1740	0.0000	0.0000	1261.5546	85.6177
0.900000	661.60870	0.1570	0.0000	0.0000	1267.1930	87.1684
0.800000	704.61573	0.1136	0.0000	0.0000	1286.0102	88.6864
0.700000	753.91024	0.1147	0.0000	0.0000	1307.4883	89.6070
0.600000	799.10107	0.1025	0.0000	0.0000	1316.9191	90.5904
0.500000	819.14091	0.0908	0.0000	0.0000	1327.4148	91.6469
0.400000	859.17802	0.0799	0.0000	0.0000	1339.8262	92.7811
0.300000	913.48749	0.0709	0.0000	0.0000	1360.7590	92.9259
0.200000	981.10520	0.0631	0.0000	0.0000	1377.5770	93.5131
0.100000	104.25522	0.0543	0.0000	0.0000	1387.4191	94.0754
0.000000	86.44461	0.0308	0.0000	0.0000	1372.4661	94.5599
0.000000	59.65194	0.0452	0.0000	0.0000	1378.7667	94.9911
0.000000	53.38154	0.0467	0.0000	0.0000	1386.6250	95.3811
0.000000	48.02552	0.0467	0.0000	0.0000	1389.5290	95.7334
0.000000	43.79691	0.0312	0.0000	0.0000	1394.1312	96.0511
0.000000	39.04624	0.0301	0.0000	0.0000	1399.3018	96.3339
0.000000	34.06107	0.0274	0.0000	0.0000	1402.0880	96.5909
0.000000	29.82854	0.0269	0.0000	0.0000	1405.5274	96.8337
0.000000	25.96701	0.0227	0.0000	0.0000	1408.6616	97.0531
0.000000	22.17904	0.0218	0.0000	0.0000	1411.5270	97.2500
0.000000	20.06574	0.0198	0.0000	0.0000	1414.1840	97.4300
0.000000	17.99557	0.0174	0.0000	0.0000	1416.5480	97.5964
0.000000	16.13311	0.0148	0.0000	0.0000	1418.7528	97.7484
0.000000	14.45420	0.0136	0.0000	0.0000	1420.7808	97.8887
0.000000	12.93749	0.0126	0.0000	0.0000	1422.6401	98.0164
0.000000	11.56520	0.0126	0.0000	0.0000	1424.3711	98.1339
0.000000	10.32074	0.0116	0.0000	0.0000	1425.9864	98.2455
0.000000	9.19036	0.0109	0.0000	0.0000	1427.4910	98.3511
0.000000	8.16174	0.0093	0.0000	0.0000	1428.8972	98.4500
0.000000	7.22627	0.0086	0.0000	0.0000	1430.2764	98.5428
0.000000	6.36810	0.0080	0.0000	0.0000	1431.6354	98.6309
0.000000	5.58564	0.0074	0.0000	0.0000	1432.9747	98.7154
0.000000	4.84802	0.0070	0.0000	0.0000	1434.2983	98.7964
0.000000	4.21154	0.0065	0.0000	0.0000	1435.6118	98.8728
0.000000	3.60784	0.0061	0.0000	0.0000	1436.9155	98.9450
0.000000	3.02554	0.0057	0.0000	0.0000	1438.2108	99.0134
0.000000	2.50121	0.0054	0.0000	0.0000	1439.5084	99.0784
0.000000	2.00664	0.0050	0.0000	0.0000	1440.8080	99.1409
0.000000	1.53674	0.0047	0.0000	0.0000	1442.1011	99.1999
0.000000	1.09521	0.0042	0.0000	0.0000	1443.3884	99.2554
0.000000	0.71674	0.0039	0.0000	0.0000	1444.6708	99.3084
0.000000	0.40684	0.0037	0.0000	0.0000	1445.9484	99.3584
0.000000	0.20001	0.0035	0.0000	0.0000	1447.2219	99.4054
0.000000	0.10311	0.0031	0.0000	0.0000	1448.4911	99.4484
0.000000	0.12317	0.0030	0.0000	0.0000	1449.7554	99.4874
0.000000	0.00000	0.0028	0.0000	0.0000	1451.0154	99.5224
0.000000	0.00000	0.1027	0.0000	0.0000	1452.2708	99.5534

0.000000	1.31404	0.0025	0.0000	0.0000	1453.5212	99.5809
0.000000	1.14359	0.0024	0.0000	0.0000	1454.7645	99.6054
0.000000	0.98300	0.0023	0.0000	0.0000	1456.0001	99.6264
0.000000	0.83420	0.0021	0.0000	0.0000	1457.2284	99.6434
0.000000	0.69174	0.0020	0.0000	0.0000	1458.4498	99.6564
0.000000	0.56182	0.0019	0.0000	0.0000	1459.6644	99.6654
0.000000	0.44370	0.0018	0.0000	0.0000	1460.8720	99.6704
0.000000	0.33745	0.0018	0.0000	0.0000	1462.0728	99.6724
0.000000	0.24117	0.0017	0.0000	0.0000	1463.2664	99.6724
0.000000	0.15402	0.0016	0.0000	0.0000	1464.4528	99.6704
0.000000	0.07112	0.0015	0.0000	0.0000	1465.6324	99.6654
0.000000	0.01121	0.0014	0.0000	0.0000	1466.8054	99.6584
0.000000	0.01047	0.0014	0.0000	0.0000	1467.9728	99.6484
0.000000	0.01200	0.0013	0.0000	0.0000	1469.1344	99.6344
0.000000	0.01101	0.0013	0.0000	0.0000	1470.2908	99.6164
0.000000	0.01071	0.0013	0.0000	0.0000	1471.4428	99.5944
0.000000	0.01031	0.0012	0.0000	0.0000	1472.5904	99.5684
0.000000	0.00981	0.0011	0.0000	0.0000	1473.7336	99.5384
0.000000	0.00921	0.0010	0.0000	0.0000	1474.8728	99.5044
0.000000	0.00851	0.0010	0.0000	0.0000	1476.0084	99.4664
0.000000	0.00781	0.0009	0.0000	0.0000	1477.1408	99.4244
0.000000	0.00711	0.0008	0.0000	0.0000	1478.2696	99.3784
0.000000	0.00641	0.0007	0.0000	0.0000	1479.3944	99.3284
0.000000	0.00571	0.0006	0.0000	0.0000	1480.5154	99.2744
0.000000	0.00501	0.0005	0.0000	0.0000	1481.6328	99.2164
0.000000	0.00431	0.0004	0.0000	0.0000	1482.7464	99.1544
0.000000	0.00361	0.0003	0.0000	0.0000	1483.8564	99.0884
0.000000	0.00291	0.0002	0.0000	0.0000	1484.9628	99.0184
0.000000	0.00221	0.0001	0.0000	0.0000	1486.0654	98.9444
0.000000	0.00151	0.0000	0.0000	0.0000	1487.1644	98.8664
0.000000	0.00081	0.0000	0.0000	0.0000	1488.2594	98.7844
0.000000	0.00011	0.0000	0.0000	0.0000	1489.3508	98.6984
0.000000	0.00000	0.0000	0.0000	0.0000	1490.4384	98.6084
0.000000	0.00000	0.0000	0.0000	0.0000	1491.5224	98.5144
0.000000	0.00000	0.0000	0.0000	0.0000	1492.6028	98.4164
0.000000	0.00000	0.0000	0.0000	0.0000	1493.6794	98.3144
0.000000	0.00000	0.0000	0.0000	0.0000	1494.7524	98.2084
0.000000	0.00000	0.0000	0.0000	0.0000	1495.8214	98.0984
0.000000	0.00000	0.0000	0.0000	0.0000	1496.8864	97.9844
0.000000	0.00000	0.0000	0.0000	0.0000	1497.9474	97.8664
0.000000	0.00000	0.0000	0.0000	0.0000	1499.0044	97.7444
0.000000	0.00000	0.0000	0.0000	0.0000	1500.0574	97.6184
0.000000	0.00000	0.0000	0.0000	0.0000	1501.1064	97.4884
0.000000	0.00000	0.0000	0.0000	0.0000	1502.1514	97.3544
0.000000	0.00000	0.0000	0.0000	0.0000	1503.1924	97.2164
0.000000	0.00000	0.0000	0.0000	0.0000	1504.2294	97.0744
0.000000	0.00000	0.0000	0.0000	0.0000	1505.2624	96.9284
0.000000	0.00000	0.0000	0.0000	0.0000	1506.2914	96.7784
0.000000	0.00000	0.0000	0.0000	0.0000	1507.3164	96.6244
0.000000	0.00000	0.0000	0.0000	0.0000	1508.3374	96.4664
0.000000	0.00000	0.0000	0.0000	0.0000	1509.3544	96.3044
0.000000	0.00000	0.0000	0.0000	0.0000	1510.3674	96.1384
0.000000	0.00000	0.0000	0.0000	0.0000	1511.3764	95.9684
0.000000	0.00000	0.0000	0.0000	0.0000	1512.3814	95.7944
0.000000	0.00000	0.0000	0.0000	0.0000	1513.3824	95.6164
0.000000	0.00000	0.0000	0.0000	0.0000	1514.3794	95.4344
0.000000	0.00000	0.0000	0.0000	0.0000	1515.3724	95.2484
0.000000	0.00000	0.0000	0.0000	0.0000	1516.3614	95.0584
0.000000	0.00000	0.0000	0.0000	0.0000	1517.3464	94.8644
0.000000	0.00000	0.0000	0.0000	0.0000	1518.3274	94.6664
0.000000	0.00000	0.0000	0.0000	0.0000	1519.3044	94.4644
0.000000	0.00000	0.0000	0.0000	0.0000	1520.2774	94.2584
0.000000	0.00000	0.0000	0.0000	0.0000	1521.2464	94.0484
0.000000	0.00000	0.0000	0.0000	0.0000	1522.2114	93.8344
0.000000	0.00000	0.0000	0.0000	0.0000	1523.1724	93.6164
0.000000	0.00000	0.0000	0.0000	0.0000	1524.1294	93.3944
0.000000	0.00000	0.0000	0.0000	0.0000	1525.0824	93.1684
0.000000	0.00000	0.0000	0.0000	0.0000	1526.0314	92.9384
0.000000	0.00000	0.0000	0.0000	0.0000	1526.9764	92.7044
0.000000	0.00000	0.0000	0.0000	0.0000	1527.9174	92.4664
0.000000	0.00000	0.0000	0.0000	0.0000	1528.8544	92.2244
0.000000	0.00000	0.0000	0.0000	0.0000	1529.7874	91.9784
0.000000	0.00000	0.0000	0.0000	0.0000	1530.7164	91.7284
0.000000	0.00000	0.0000	0.0000	0.0000	1531.6414	91.4744
0.000000	0.00000	0.0000	0.0000	0.0000	1532.5624	91.2164
0.000000	0.00000	0.0000	0.0000	0.0000	1533.4794	90.9544
0.000000	0.00000	0.0000	0.0000	0.0000	1534.3924	90.6884
0.000000	0.00000	0.0000	0.0000	0.0000	1535.3014	90.4184
0.000000	0.00000	0.0000	0.0000	0.0000	1536.2064	90.1444
0.000000	0.00000	0.0000	0.0000	0.0000	1537.1074	89.8664
0.000000	0.00000	0.0000	0.0000	0.0000	1538.0044	89.5844
0.000000	0.00000	0.0000	0.0000	0.0000	1538.8974	89.2984
0.000000	0.00000	0.0000	0.0000	0.0000	1539.7864	89.0084
0.000000	0.00000	0.0000	0.0000	0.0000	1540.6714	88.7144
0.000000	0.00000	0.0000	0.0000	0.0000	1541.5524	88.4164
0.000000	0.00000	0.0000	0.0000	0.0000	1542.4294	88.1144
0.000000	0.00000	0.0000	0.0000	0.0000	1543.3024	87.8084
0.000000	0.00000	0.0000	0.0000			

VISIBILITY AND OTHER DATA FOR PLENER RADIATION, MECHANICS DIVISION, D.R.I., UNIVERSITY OF DENVER.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3770.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 4050.0  
DEGREES FAHRENHEIT = 6830.0

THE POWER RADIATED FROM 0.40 TO 0.75 MICRON IS 192.95 WATT/CM<sup>2</sup>.

THE TOTAL VISIBLE FLUX IS 45496.35 LUMENS/CM<sup>2</sup>.

THE LUMINANCE ( 1/PI OF TOTAL VISIBLE FLUX) IS 27245.2V CANDELA/CM<sup>2</sup>.

THE RATIO OF THE VISIBLE POWER TO THE TOTAL POWER IS 0.241 .

THE RATIO OF THE TOTAL VISIBLE FLUX TO VISIBLE POWER IS 215.460 (LUMENS/WATT).

THE RATIO OF THE TOTAL VISIBLE FLUX TO TOTAL POWER IS 56.154 LUMEN/WATT

THE WAVELENGTH OF PEAK POWER OUTPUT IS 0.7156 MICRONS.

THE WAVELENGTH PRODUCED MOST EFFICIENTLY IS 0.9017 MICRONS.  
I.E., THIS MAXIMIZES THE RATIO OF SPECTRAL RADIANT EMITTANCE TO TOTAL RADIANT EMITTANCE.

THE TOTAL POWER RADIATED IS 1525.39 WATT/CM<sup>2</sup> IN 1.52539E+10 PHOTONS/SEC/CM<sup>2</sup> OR 3.64474E+01 KCAL/SEC/CM<sup>2</sup>

THE POWER RADIATED AT THE PEAK WAVELENGTH IS 1402.88 WATT/CM<sup>2</sup> PER MICRON.

THE SPECTRAL BRIGHTNESS (COLUMN 4) IS THE PRODUCT, AND LUMENS PER WATT = RADIANT EMITTANCE \* VISIBILITY FACTOR,  
WHERE RADIANT EMITTANCE IS EXPRESSED IN WATTS PER SQUARE CENTIMETER PER MICRON.

WHEN SMALL TEMPERATURE CHANGES ARE INVOLVED, THE CHANGE IN RADIANT EMITTANCE (M) MAY BE CALCULATED USING THE  
TEMPERATURE EXPONENT M IN THE FOLLOWING FORMULA: M = K/T<sup>4</sup>.

THE EMISSIVITY IS 1.0000 AND THE TEMPERATURE IS 3770.0 DEGREES CENTIGRADE FOR THE FOLLOWING TABLE. DEGREES K = 4050.0  
DEGREES FAHRENHEIT = 6830.0

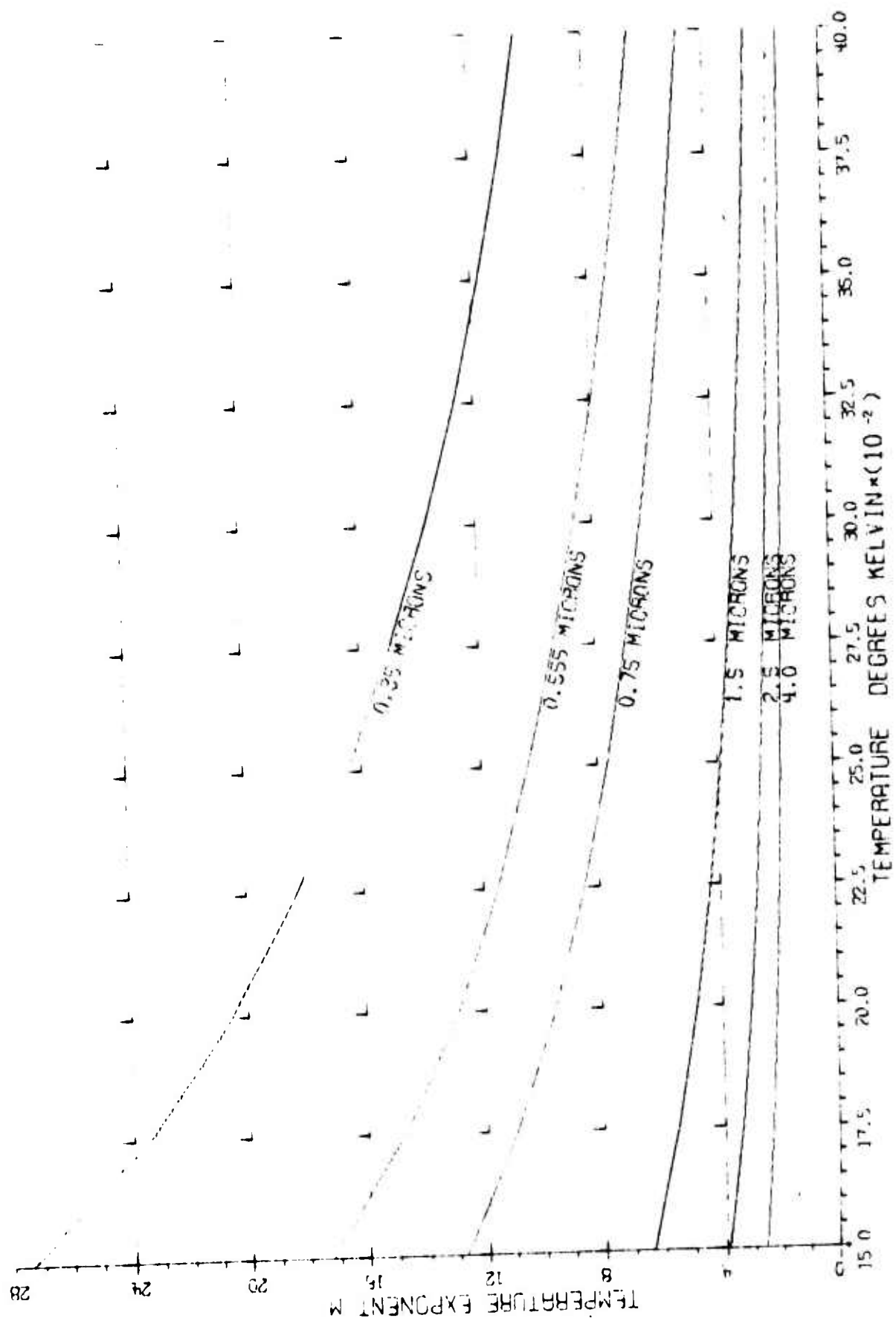
WAVELENGTH L MICRONS	HEMISPHERICAL POWER WATTS/CM <sup>2</sup> /MICRON	POWER NORMALIZED TO PEAK	SPECTRAL BRIGHTNESS LUMENS PER CM <sup>2</sup> PER MICRON	TEMPERATURE EXPONENT M FOR K/T <sup>4</sup>	POWER FROM ZERO TO L	% TOTAL POWER ZERO TO L
0.35000	274.81457	0.1987	0.0000	10.1844	13.0518	0.856
0.35500	290.41021	0.2114	0.0000	10.0057	14.8997	0.951
0.36000	321.05907	0.2249	0.0000	9.8464	16.0512	1.052
0.36500	331.02651	0.2445	0.0000	9.7317	17.7112	1.161
0.37000	365.50837	0.2605	0.0000	9.6003	19.4823	1.277
0.37500	388.45524	0.2760	0.0000	9.4723	21.3670	1.401
0.38000	411.42047	0.2934	0.0000	9.3474	23.3674	1.532
0.38500	435.55830	0.3105	0.0000	9.2265	25.4859	1.671
0.39000	459.82033	0.3274	0.0000	9.1043	27.7237	1.817
0.39500	483.95970	0.3450	0.0000	8.9931	30.0825	1.972
0.40000	508.52933	0.3625	138.1200	8.8909	32.5637	2.135
0.40500	533.28260	0.3801	290.1057	8.7714	35.1641	2.304
0.41000	558.17349	0.3970	455.4494	8.6644	37.8947	2.484
0.41500	583.15645	0.4157	672.4026	8.5603	40.7500	2.671
0.42000	608.14849	0.4334	1454.2727	8.4586	43.7244	2.867
0.42500	633.22540	0.4514	3141.1309	8.3593	46.8119	3.070
0.43000	658.22544	0.4692	5192.0844	8.2623	49.9040	3.282
0.43500	683.14024	0.4870	7804.2994	8.1675	53.0141	3.502
0.44000	707.95741	0.5046	11072.4530	8.0749	56.1419	3.730
0.44500	732.61243	0.5222	14447.1171	7.9844	59.2894	3.964
0.45000	757.07444	0.5397	19562.9142	7.8960	62.4577	4.210
0.45500	781.32243	0.5569	25502.3771	7.8094	65.6434	4.462
0.46000	805.31207	0.5740	32456.7326	7.7244	68.8435	4.722
0.46500	829.01614	0.5908	40716.0941	7.6421	72.0614	4.990
0.47000	852.40647	0.6074	50744.9125	7.5611	75.2901	5.264
0.47500	875.40540	0.6240	62674.7345	7.4814	78.5399	5.549
0.48000	898.13947	0.6402	76492.1402	7.4042	81.7940	5.839
0.48500	920.43451	0.6561	102774.3140	7.3282	85.0504	6.137
0.49000	942.31840	0.6717	131281.5146	7.2534	88.2777	6.443
0.49500	963.77165	0.6870	162044.0940	7.1810	91.4831	6.755
0.50000	984.77605	0.7020	214294.2119	7.1094	94.6746	7.074
0.50500	1005.33505	0.7164	278230.4029	7.0394	97.8501	7.401
0.51000	1025.37369	0.7309	350718.4145	6.9710	100.9970	7.734
0.51500	1044.93854	0.7449	432019.3992	6.9034	104.1130	8.073
0.52000	1063.99779	0.7584	513698.1313	6.8379	107.1955	8.419
0.52500	1082.54092	0.7717	603749.3644	6.7732	110.2511	8.770
0.53000	1100.55891	0.7845	695103.4235	6.7099	113.2800	9.124
0.53500	1118.04413	0.7970	795647.0571	6.6477	116.2867	9.492
0.54000	1134.99011	0.8090	904990.7444	6.5867	119.2749	9.861
0.54500	1151.39172	0.8207	102287.4407	6.5264	122.2457	10.234
0.55000	1167.24845	0.8320	114975.9324	6.4661	125.1935	10.611
0.55500	1182.54891	0.8429	128413.9131	6.4064	128.1192	11.001
0.56000	1197.29545	0.8535	142000.3701	6.3474	131.0251	11.391
0.56500	1211.49048	0.8634	156513.7101	6.2882	133.9193	11.786
0.57000	1225.13217	0.8733	172310.5401	6.2434	136.8010	12.184

0.57400	1218.72073	0.4824	770420.4151	0.1917	122.0294	12.589
0.58010	1250.75841	0.4816	719948.6771	0.1173	149.2524	12.997
0.58400	1262.76787	0.4801	701512.2173	0.0754	204.5143	13.407
0.58800	1274.19247	0.4783	655903.1172	0.1147	210.4749	13.824
0.59400	1285.09427	0.4760	607136.4875	0.1348	217.2773	14.244
0.60000	1295.46104	0.4734	565457.6721	0.1457	223.7249	14.669
0.60400	1305.10074	0.4704	501271.7706	0.1474	230.2310	15.093
0.61000	1314.41254	0.4671	449450.0479	0.1440	236.7810	15.523
0.61400	1323.40545	0.4633	394462.8477	0.1393	243.3743	15.955
0.62000	1331.48675	0.4593	345013.4041	0.1345	250.0142	16.390
0.62400	1339.46104	0.4544	292377.9949	0.1294	256.6924	16.829
0.63000	1346.74212	0.4490	242482.9104	0.1240	263.4040	17.264
0.63400	1353.93143	0.4434	197727.1547	0.1188	270.1540	17.711
0.64000	1359.44037	0.4363	161421.0038	0.1134	276.9425	18.156
0.64400	1365.67420	0.4273	129155.0547	0.1079	283.7565	18.609
0.65000	1371.08402	0.4173	99757.4542	0.1024	290.5985	19.051
0.65400	1375.94674	0.4064	73788.1381	0.1047	297.4662	19.501
0.66000	1380.43544	0.3940	51240.4623	0.1065	304.3578	19.953
0.66400	1384.44036	0.3804	42148.7425	0.1084	311.2648	20.406
0.67000	1388.07584	0.3654	30204.5374	0.1078	318.2013	20.860
0.67400	1391.24441	0.3497	21759.3754	0.1044	325.1804	21.314
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0.69400	1400.01077	0.2740	5424.5192	0.1114	353.0731	23.164
0.70000	1401.27344	0.2490	3024.7510	0.1060	360.0745	23.604
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0.84000	1322.94345	0.0010	0.0000	0.1060	552.9241	36.244
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0.86000	1299.61003	0.0240	0.0000	0.1074	579.1540	37.984
0.87000	1287.28321	0.0174	0.0000	0.1074	592.0894	38.814
0.88000	1274.55665	0.0044	0.0000	0.1044	604.8893	39.655
0.89000	1261.44014	0.0002	0.0000	0.1044	617.5104	40.487
0.90000	1248.09224	0.0047	0.0000	0.1044	630.0241	41.309
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0.93000	1206.41374	0.0000	0.0000	0.1049	666.9405	43.723
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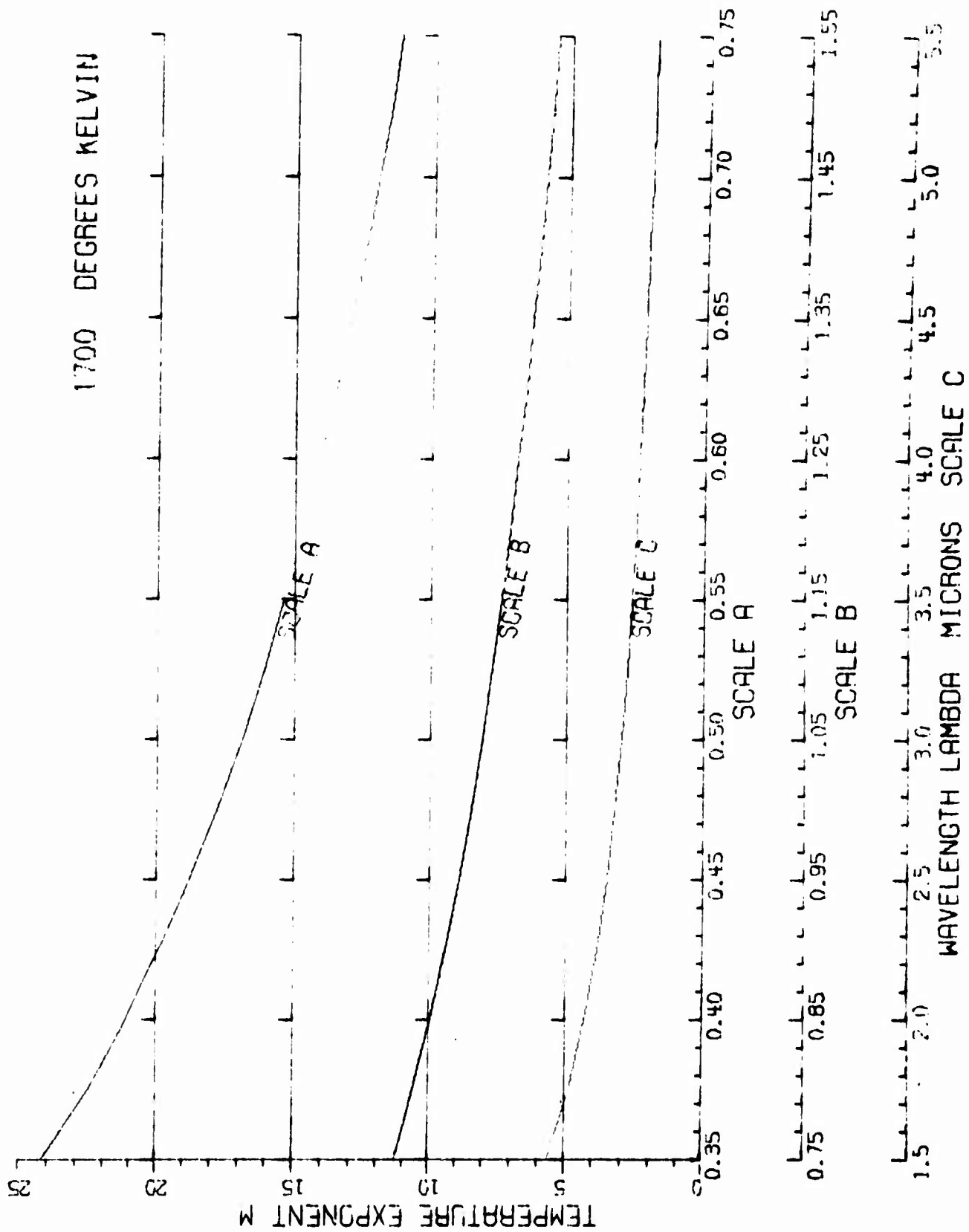
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1.08000	984.44424	0.0000	0.0000	0.1042	831.4479	54.507
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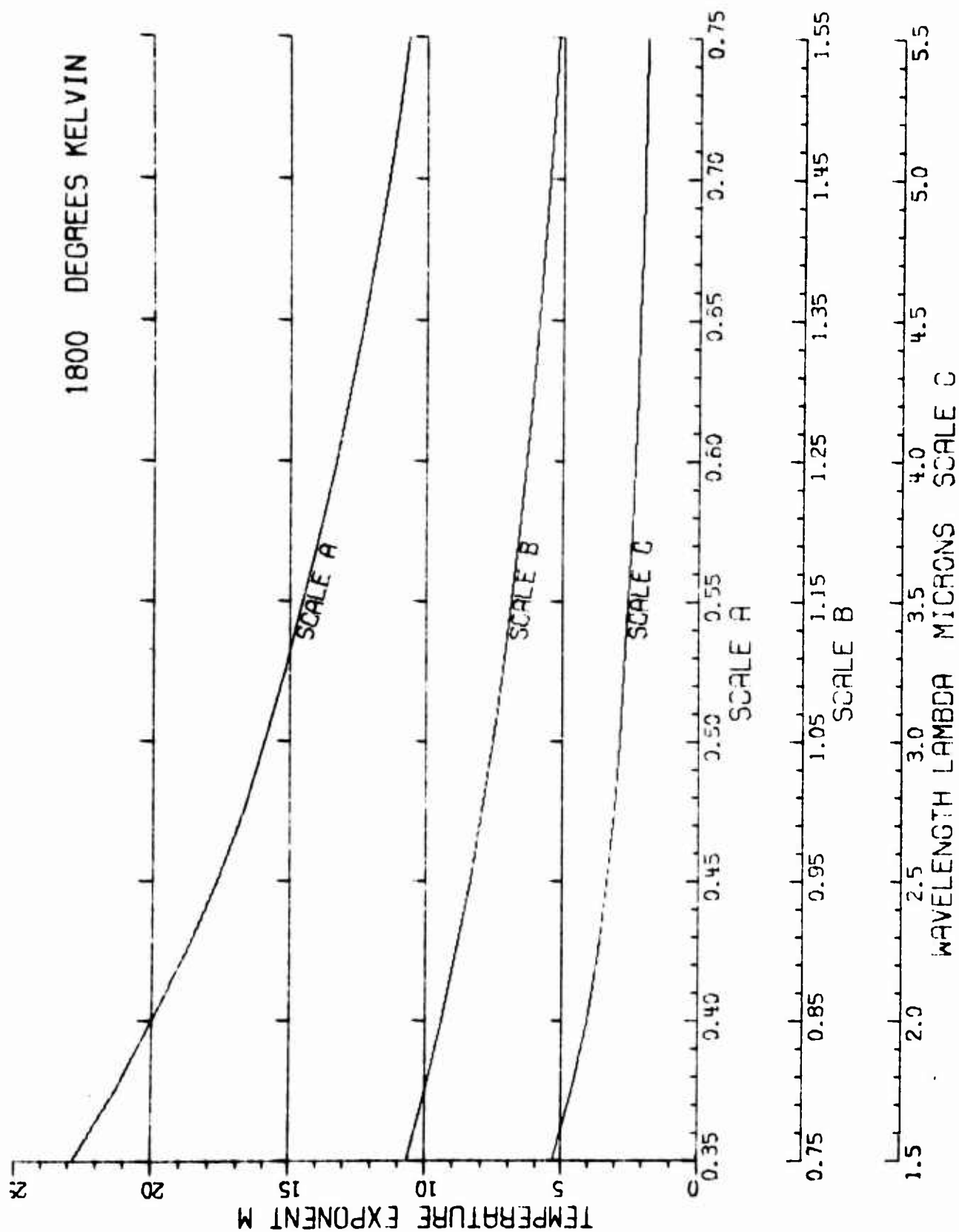
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4.80000	13.39544	0.0094	0.0000	1.4152	1502.4079	98.491
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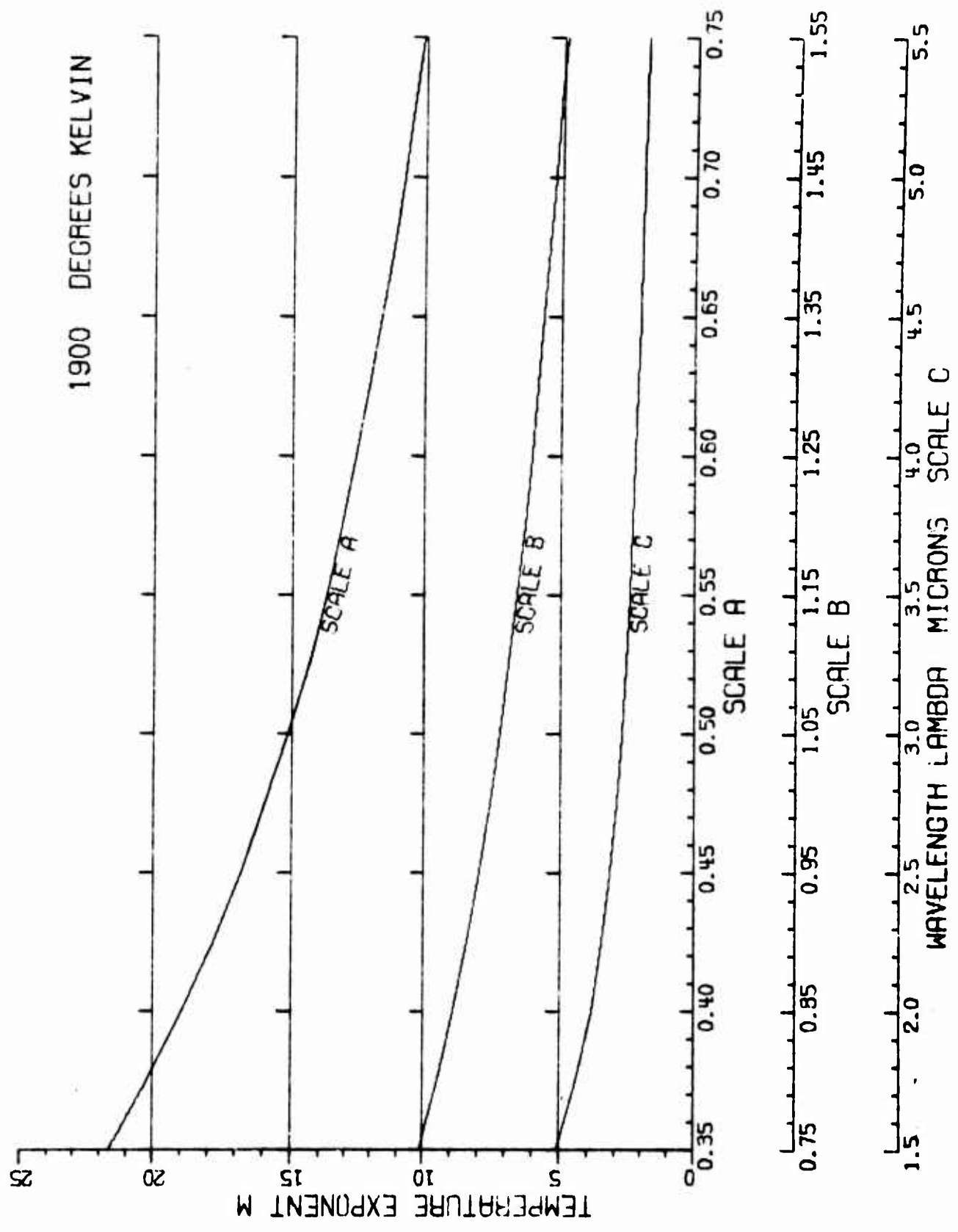


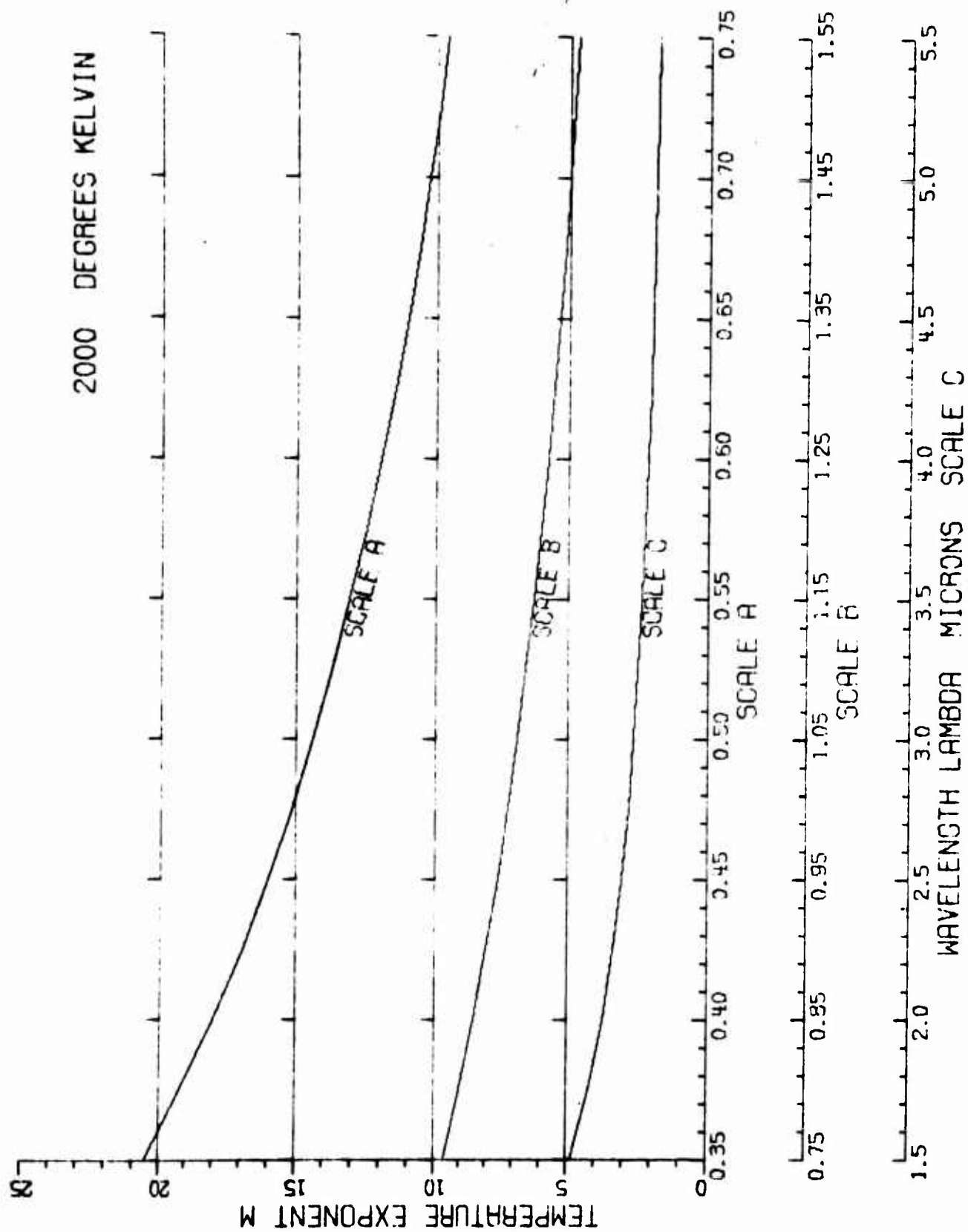


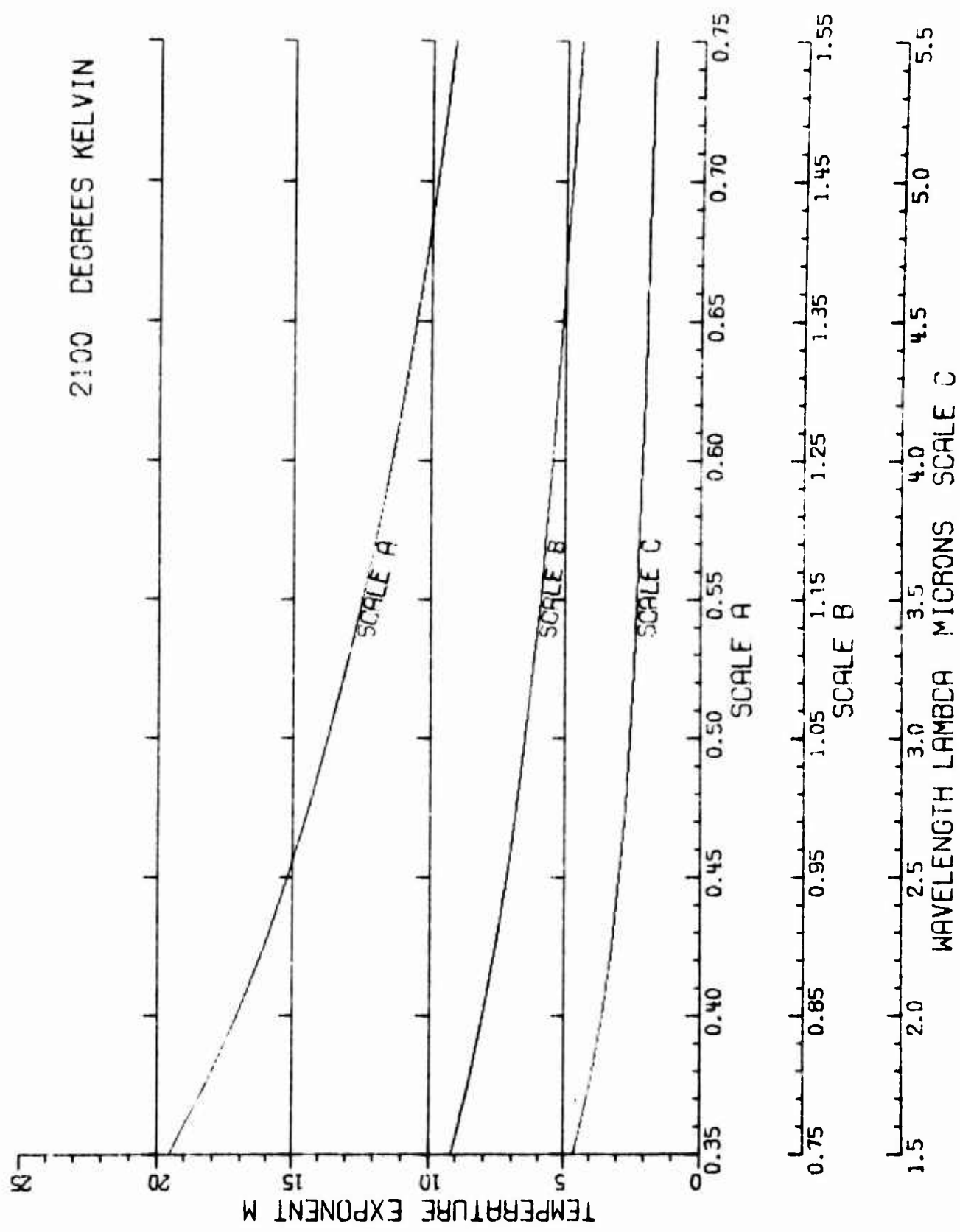




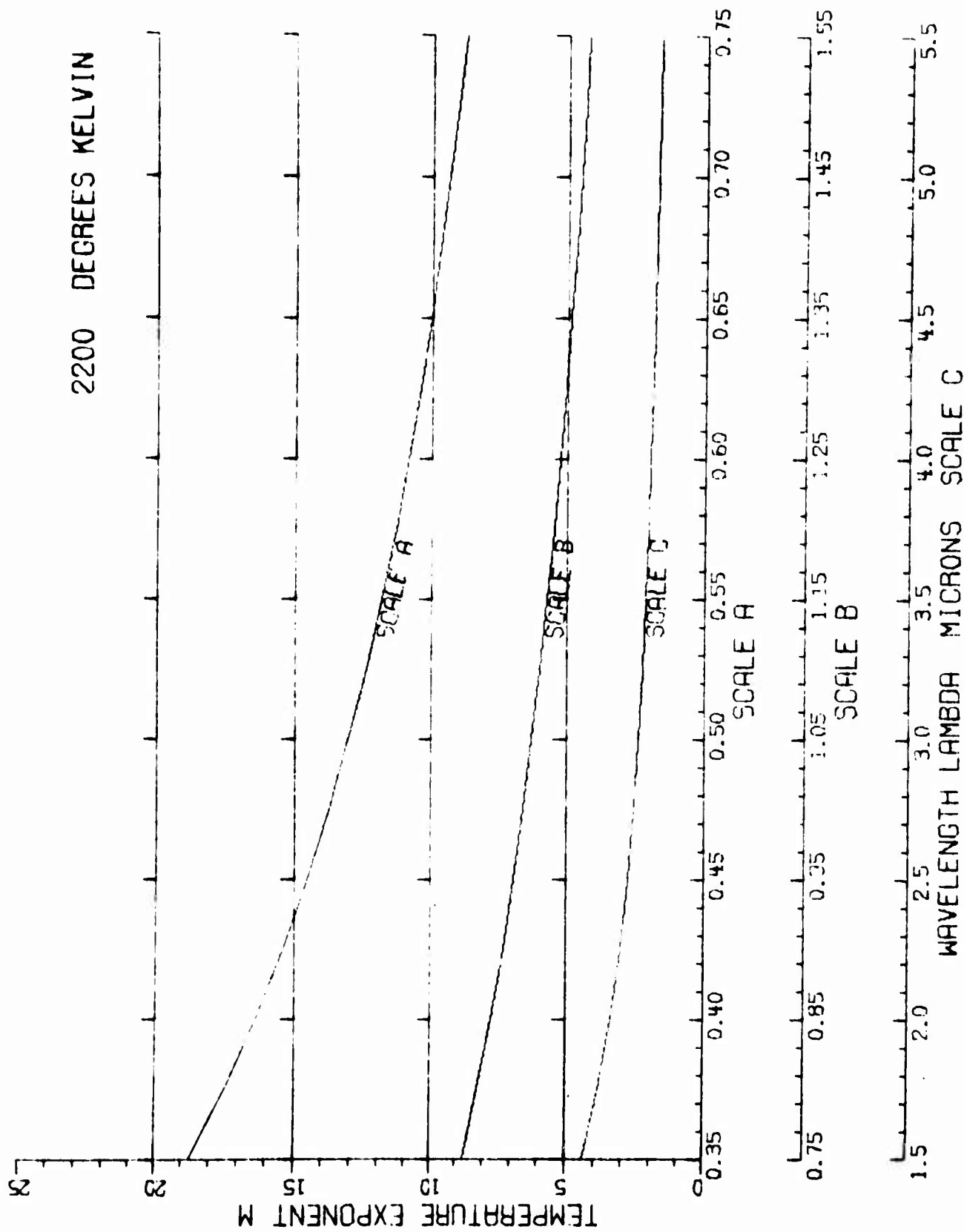
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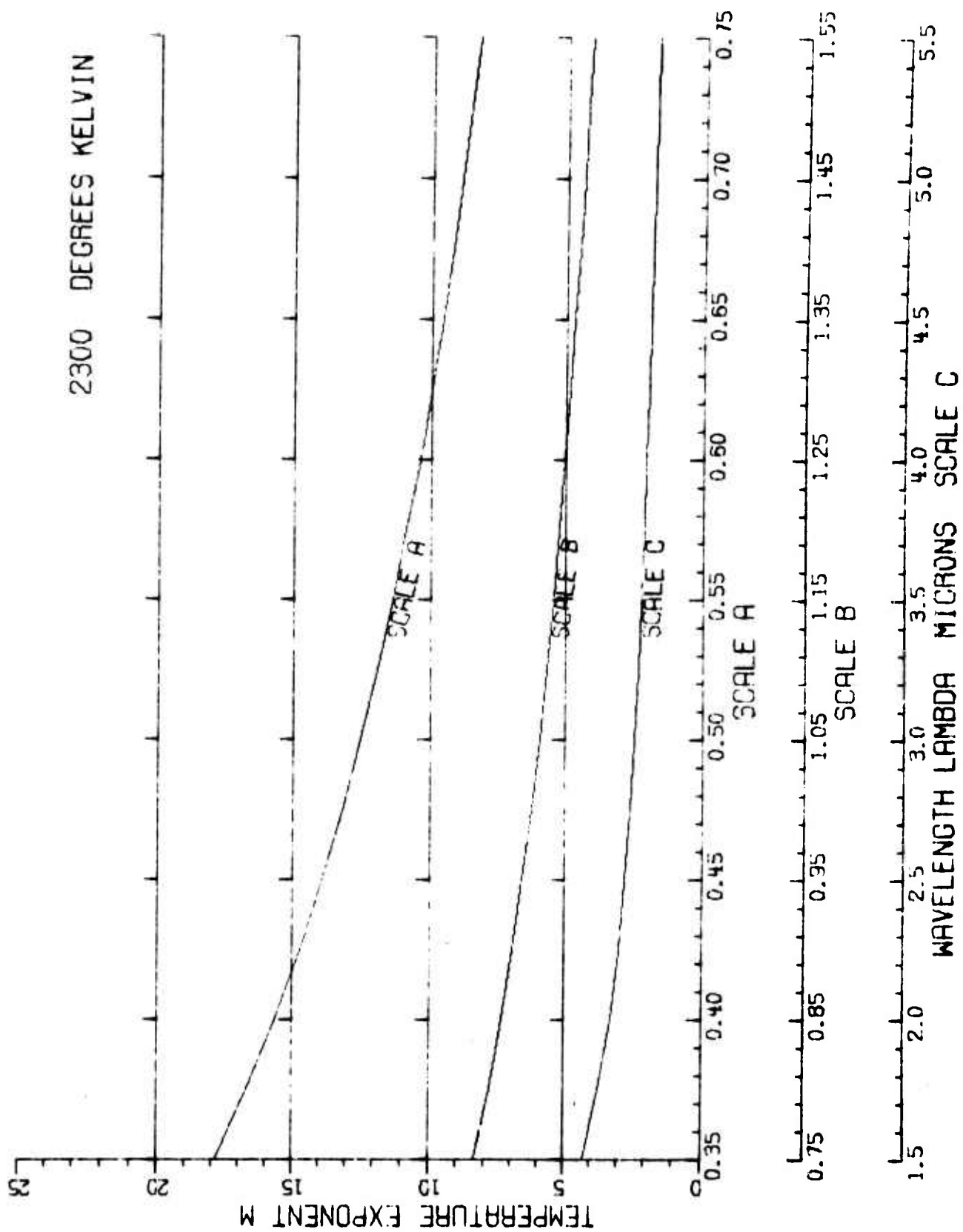


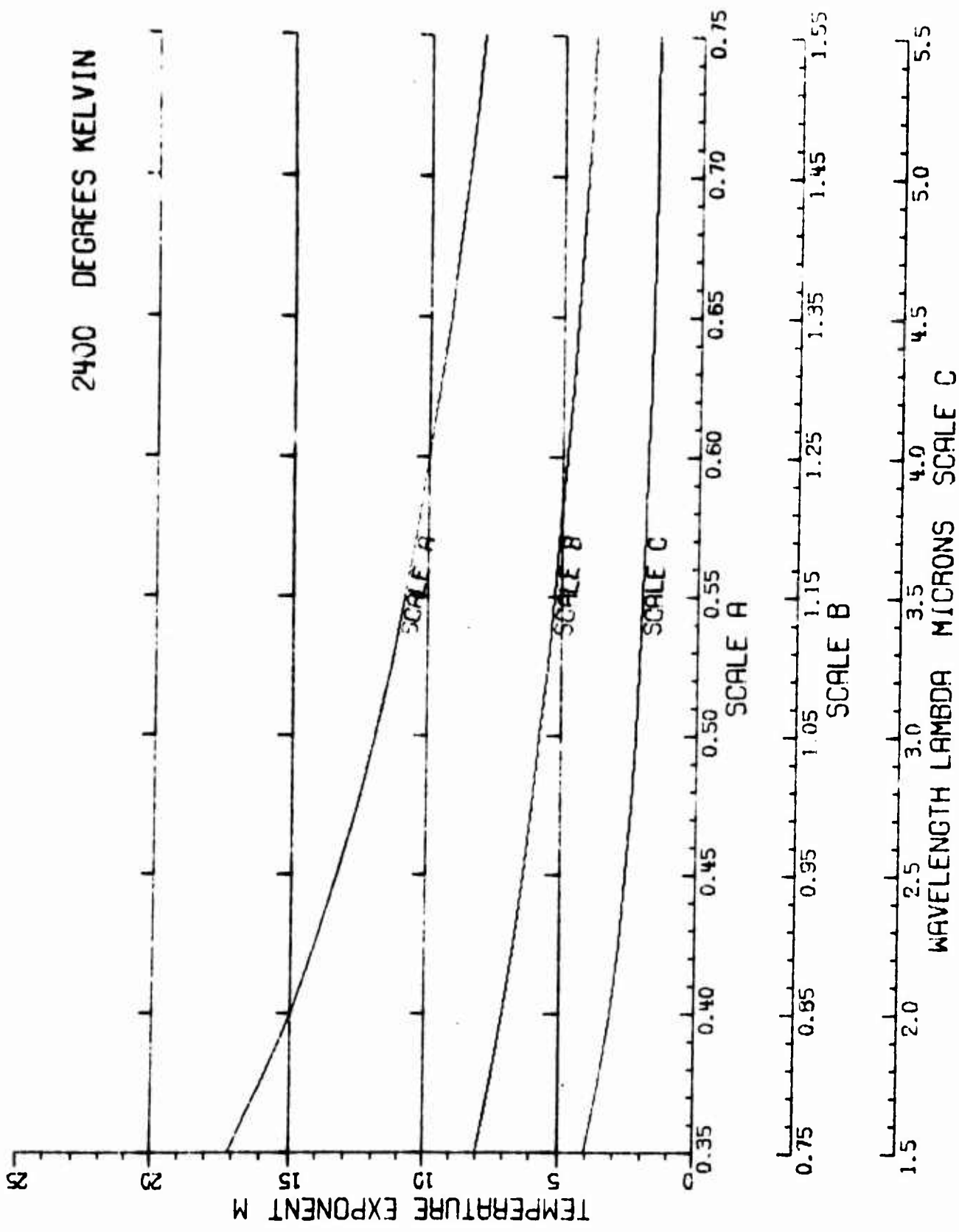




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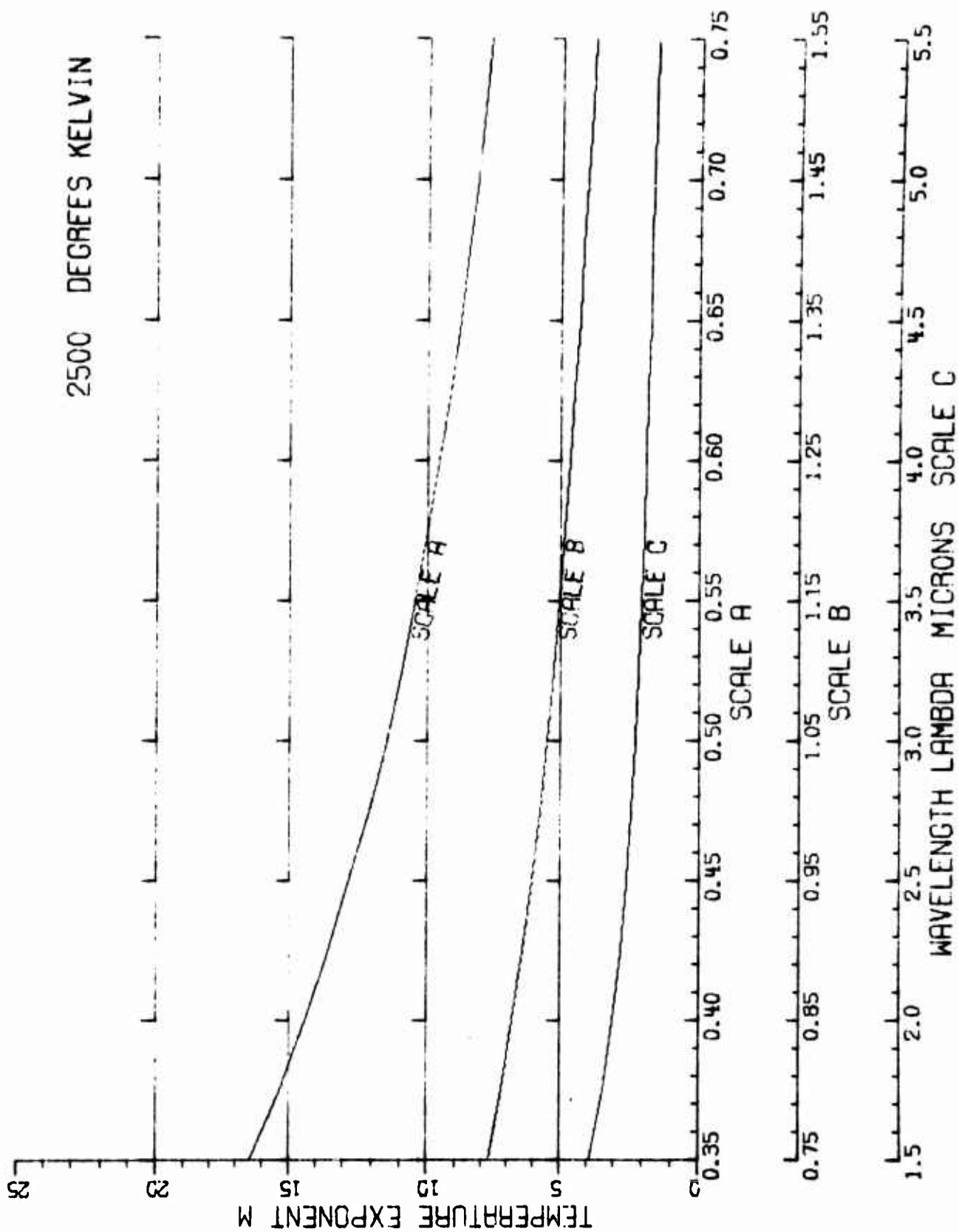




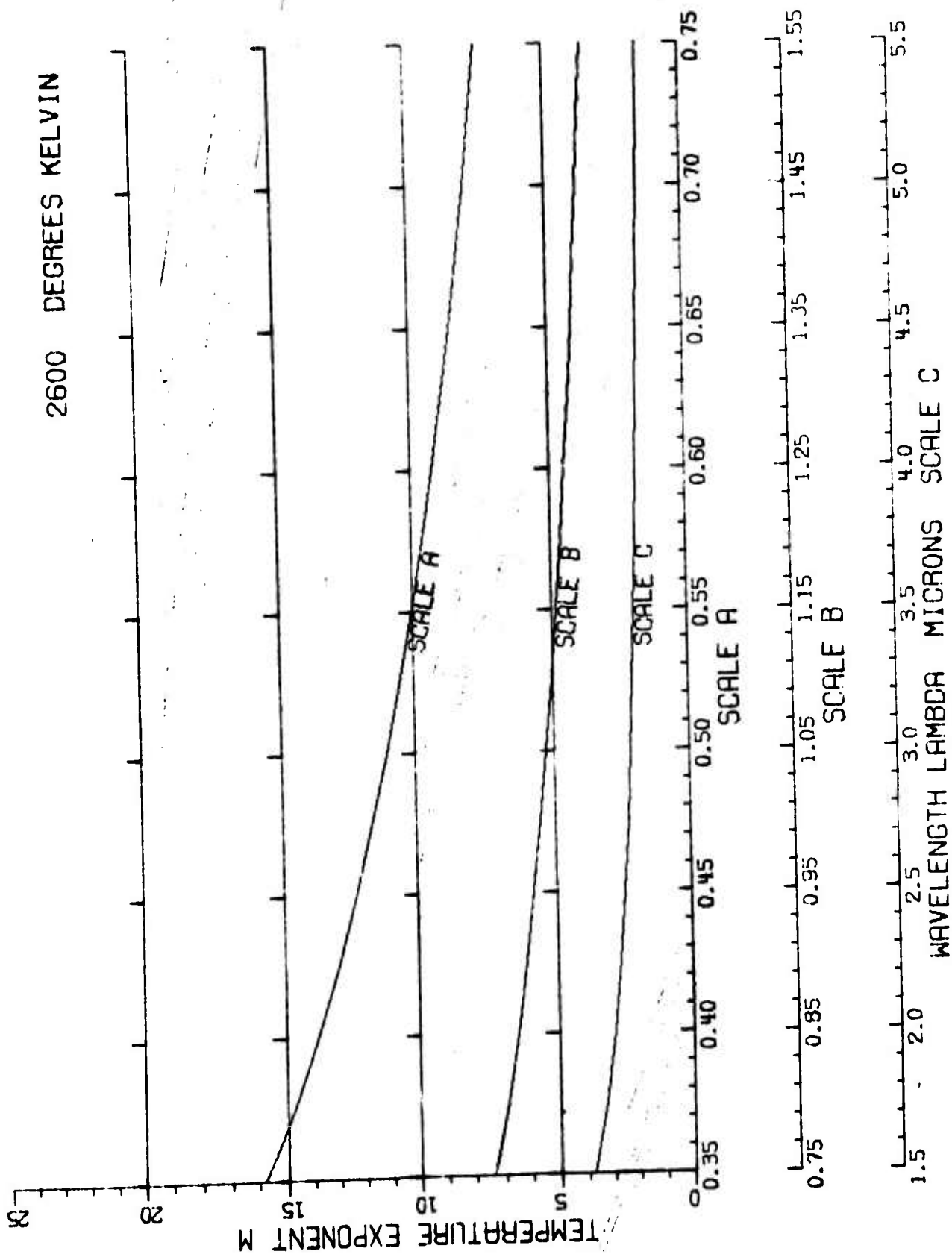


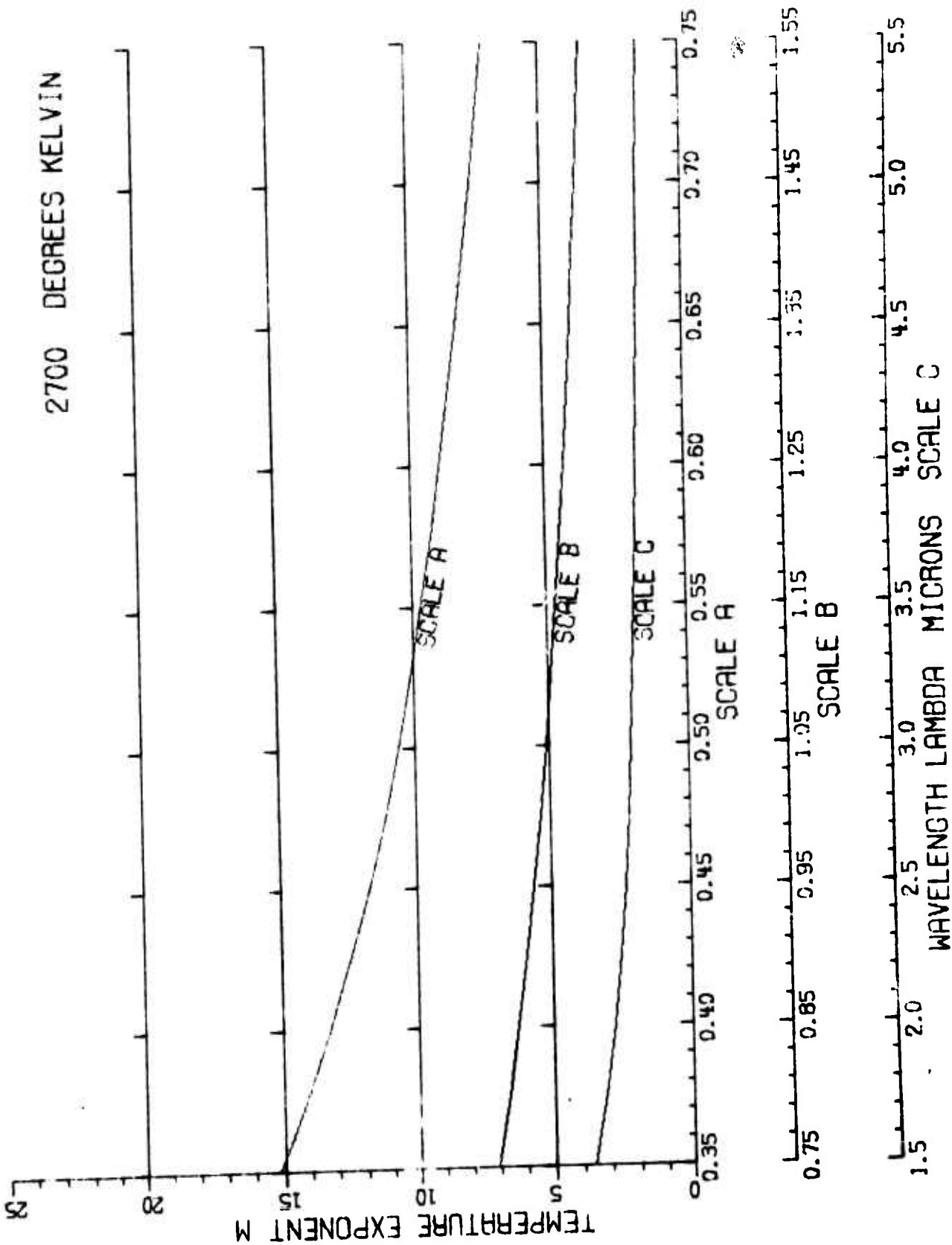


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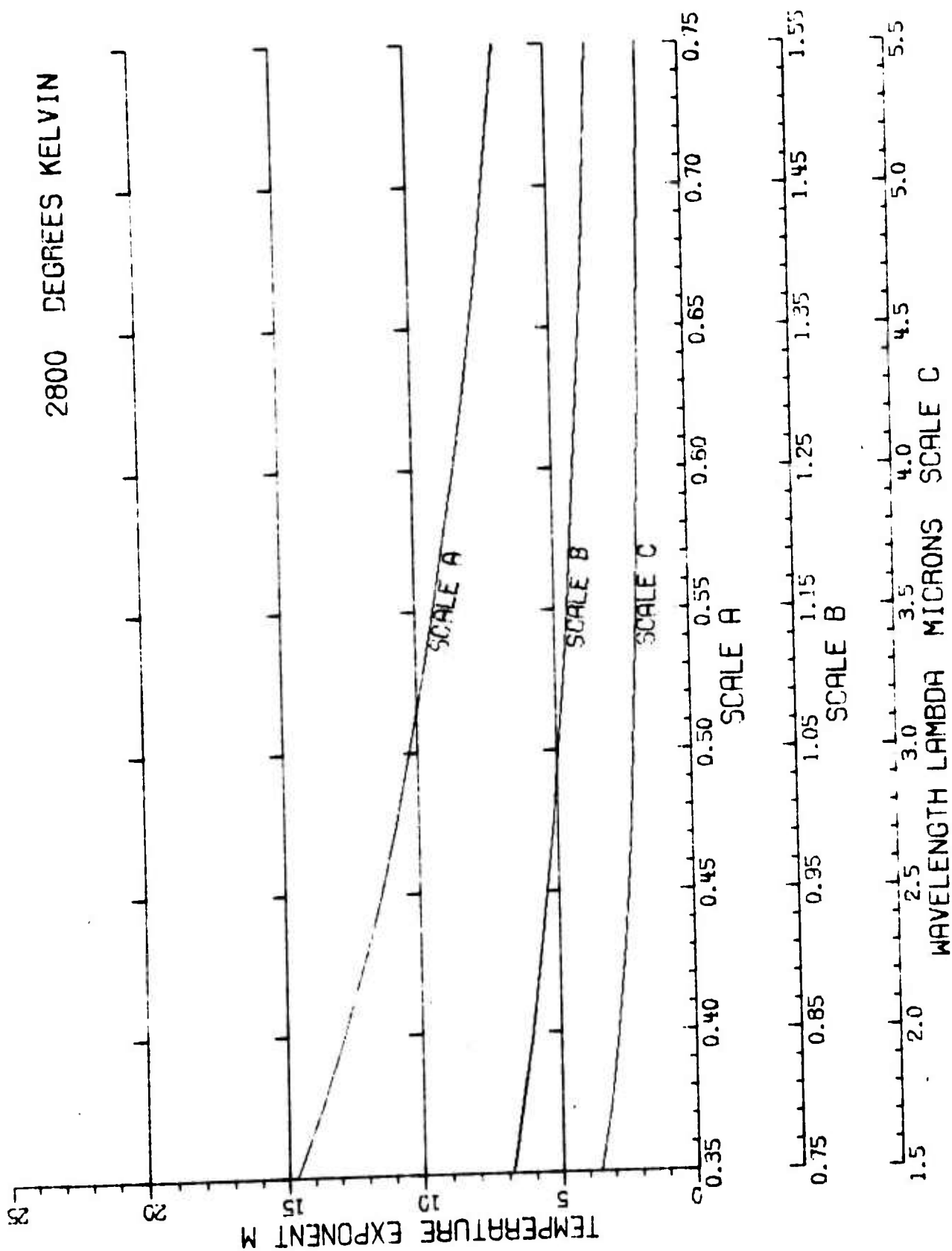


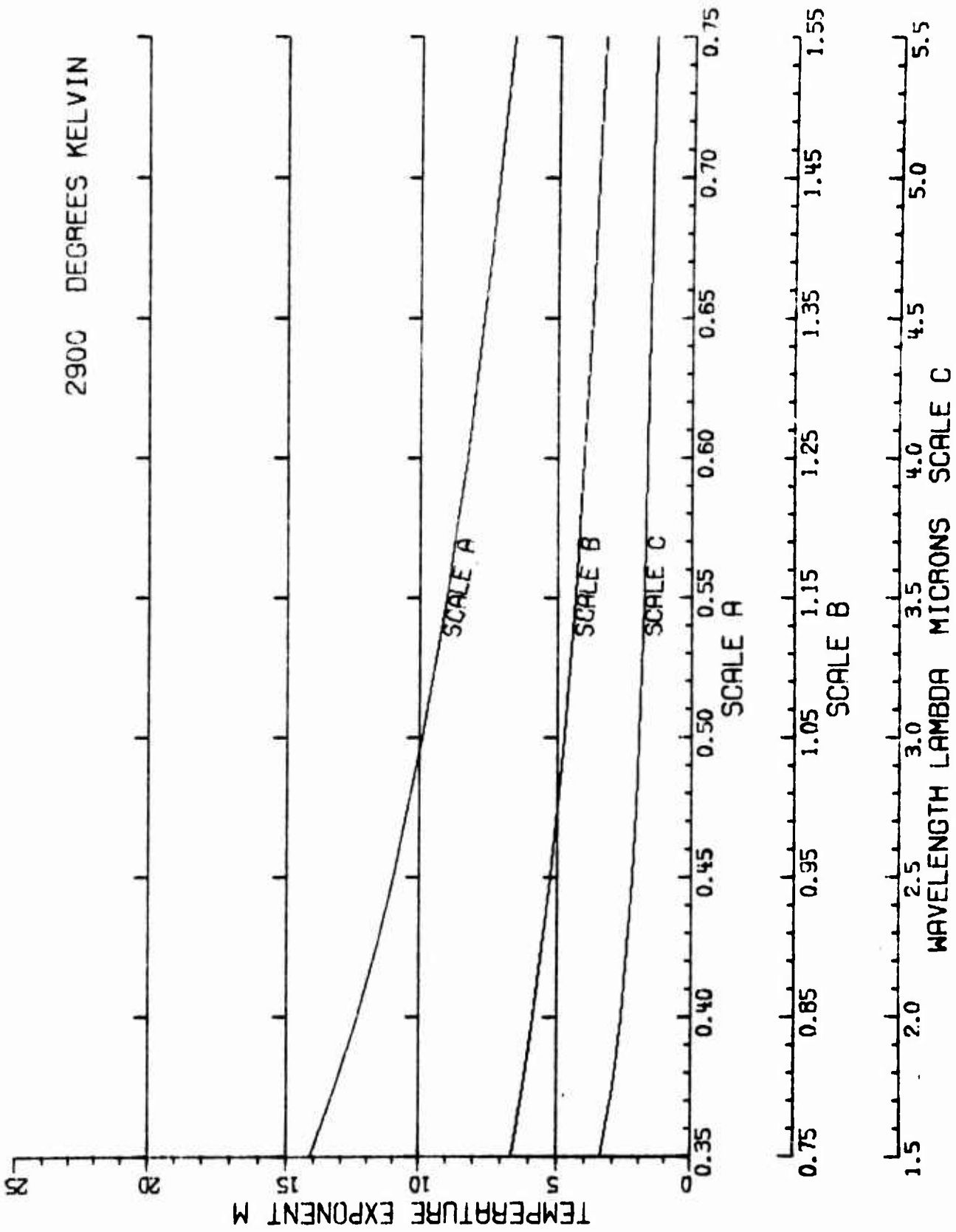
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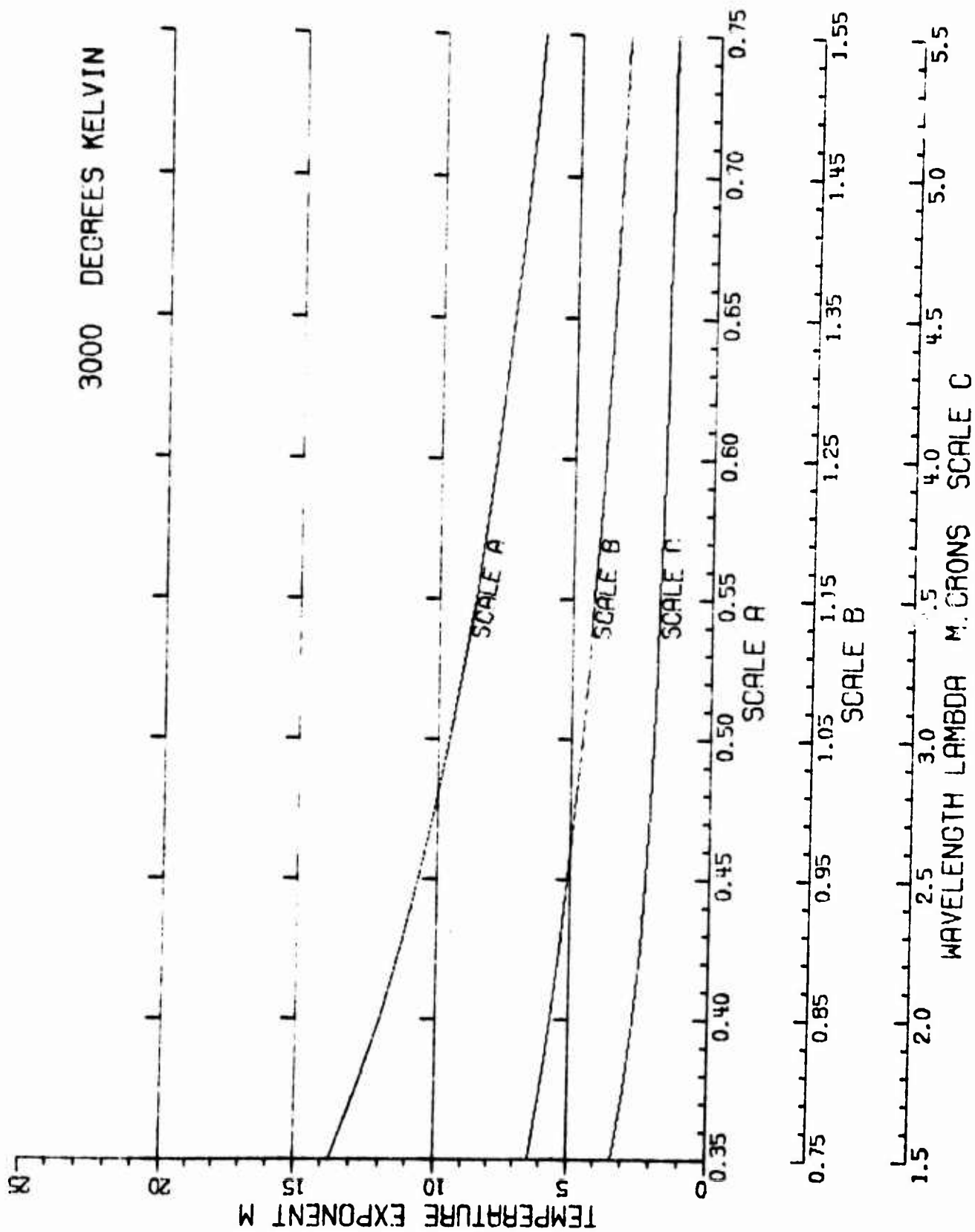




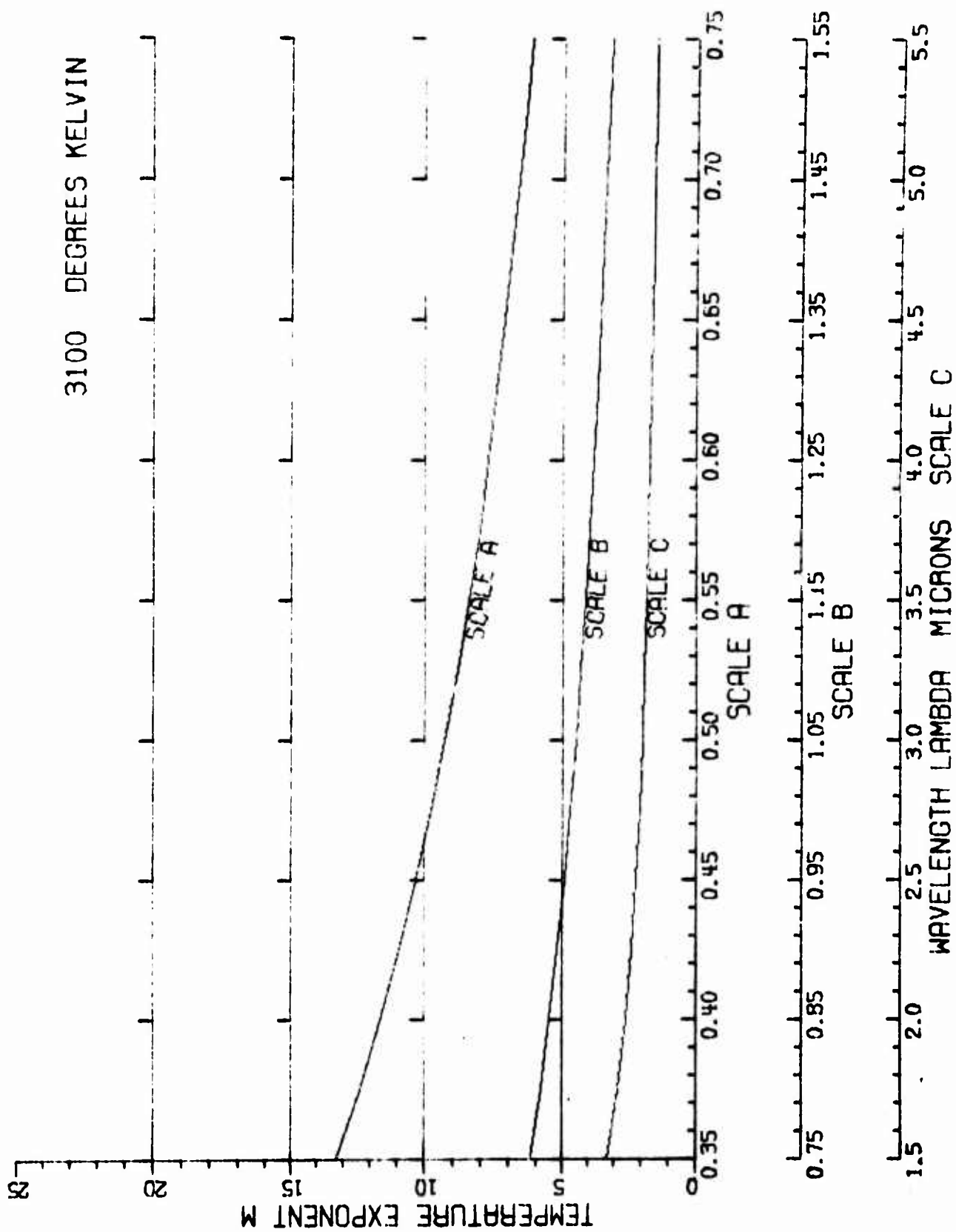
2800 DEGREES KELVIN

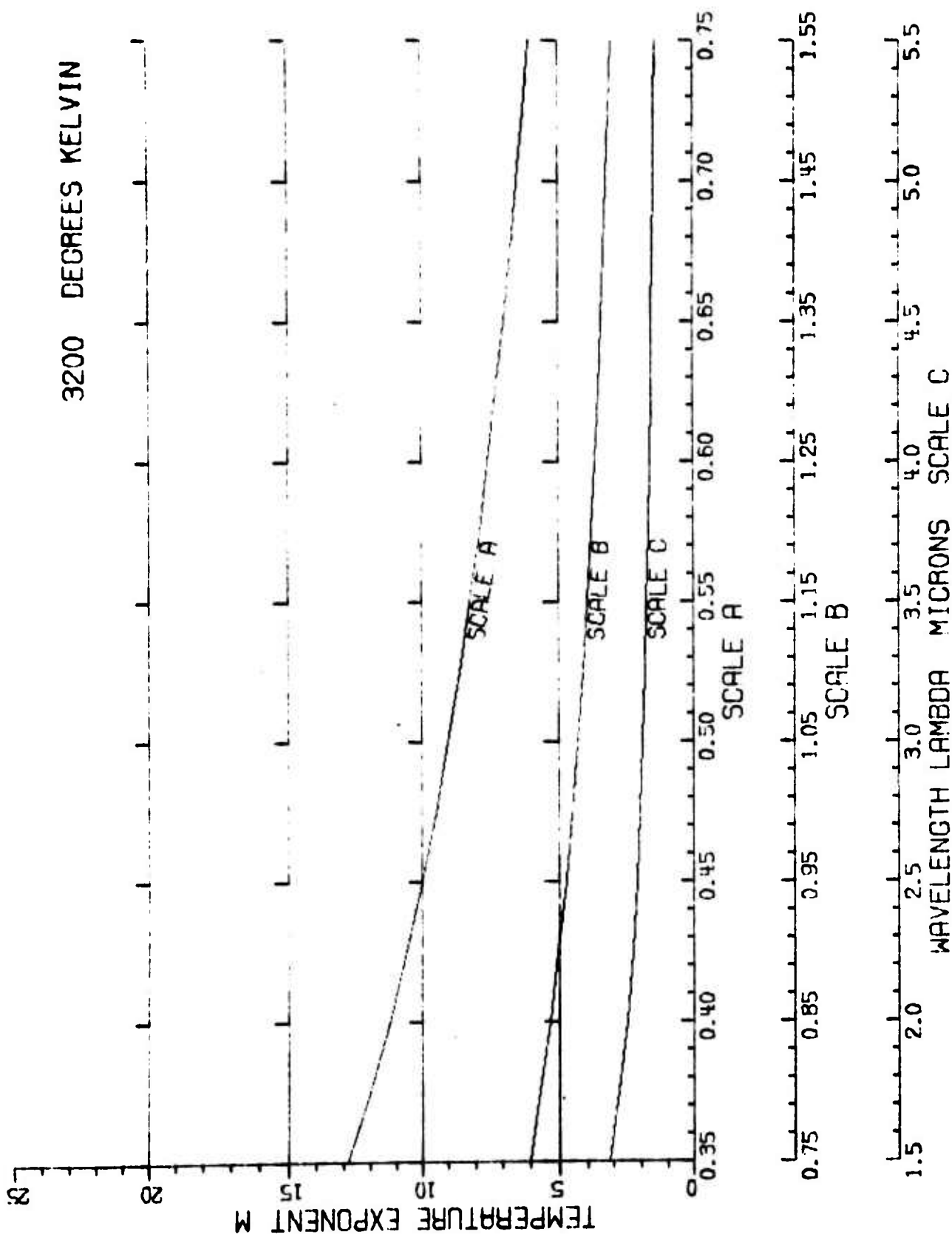




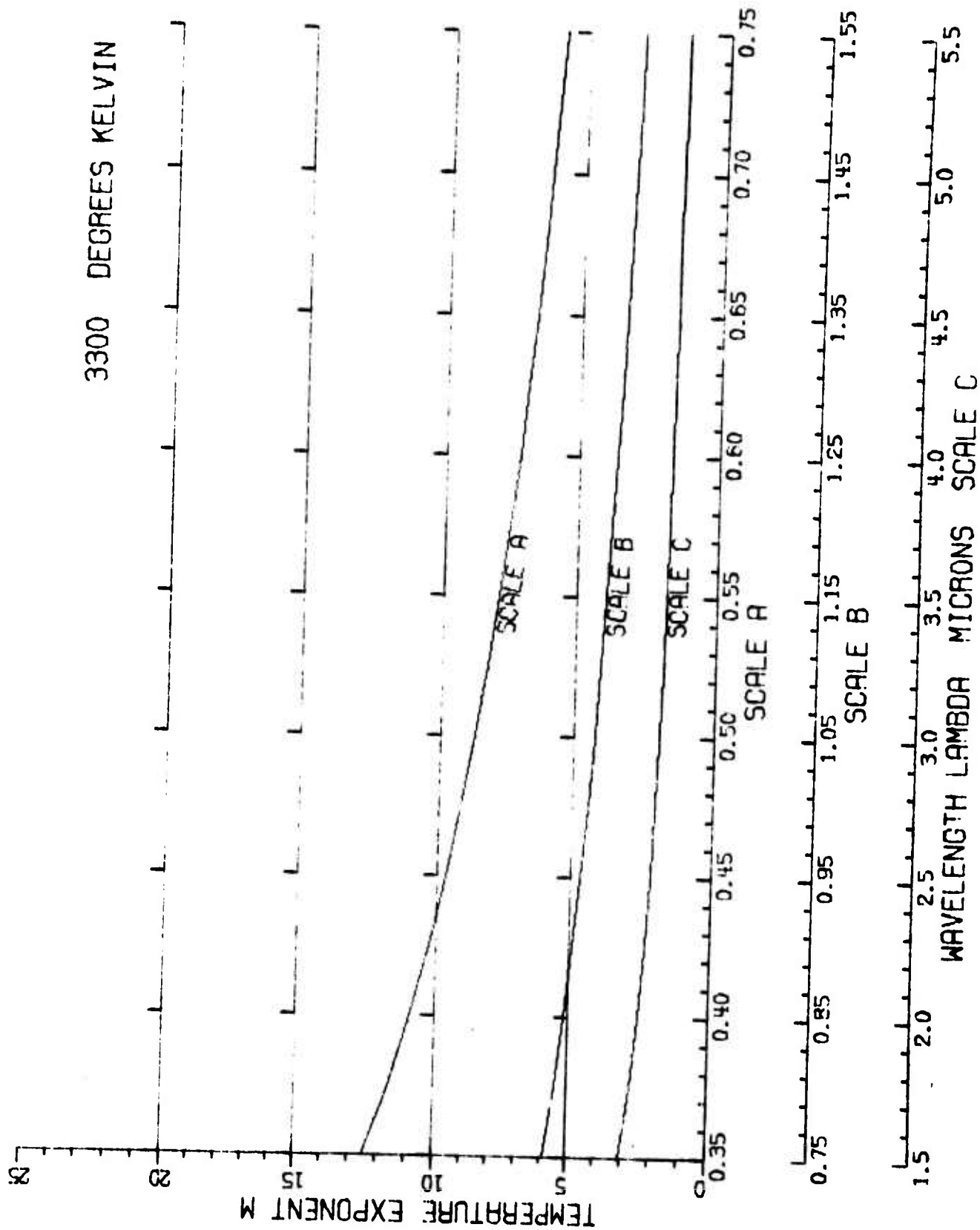


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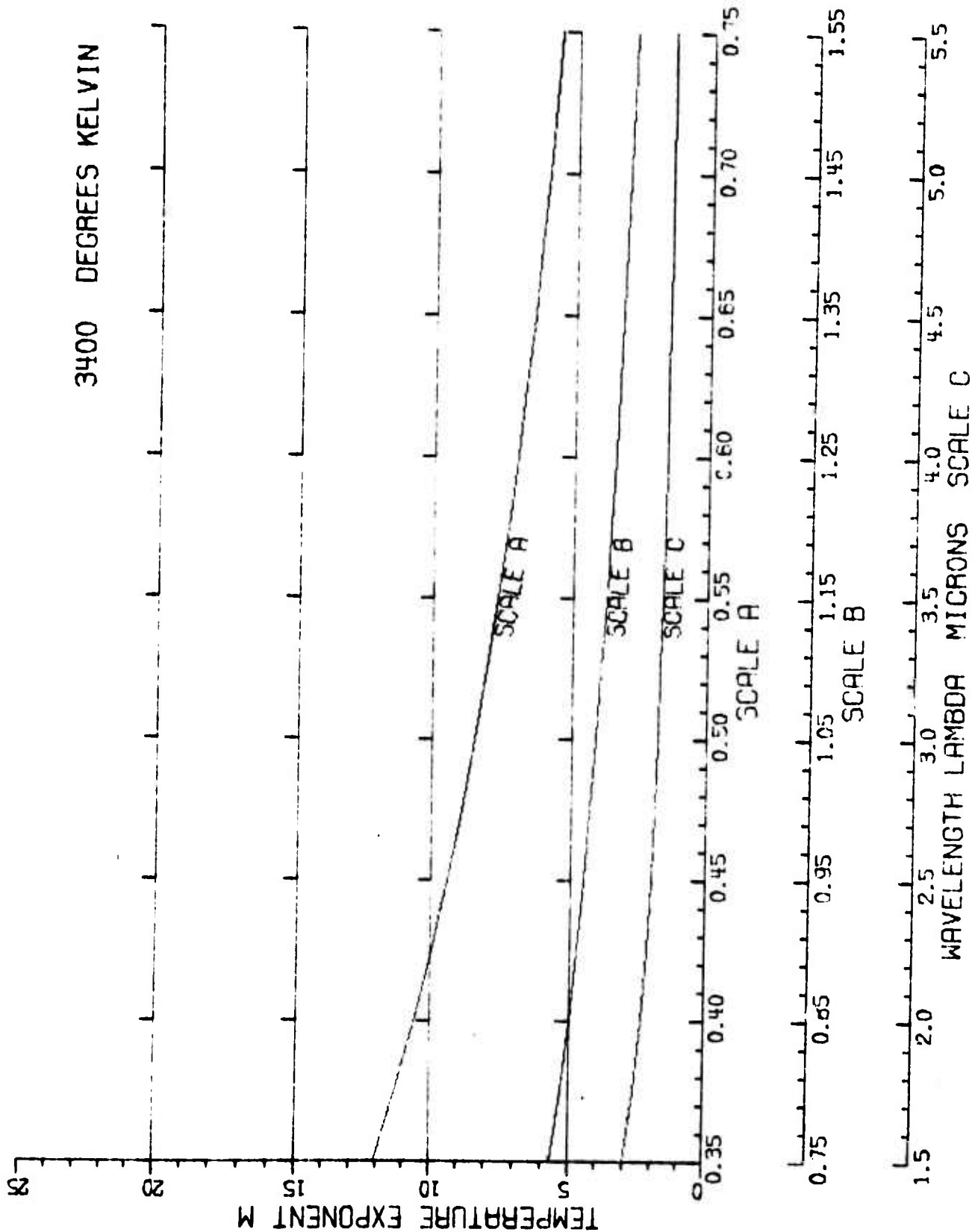




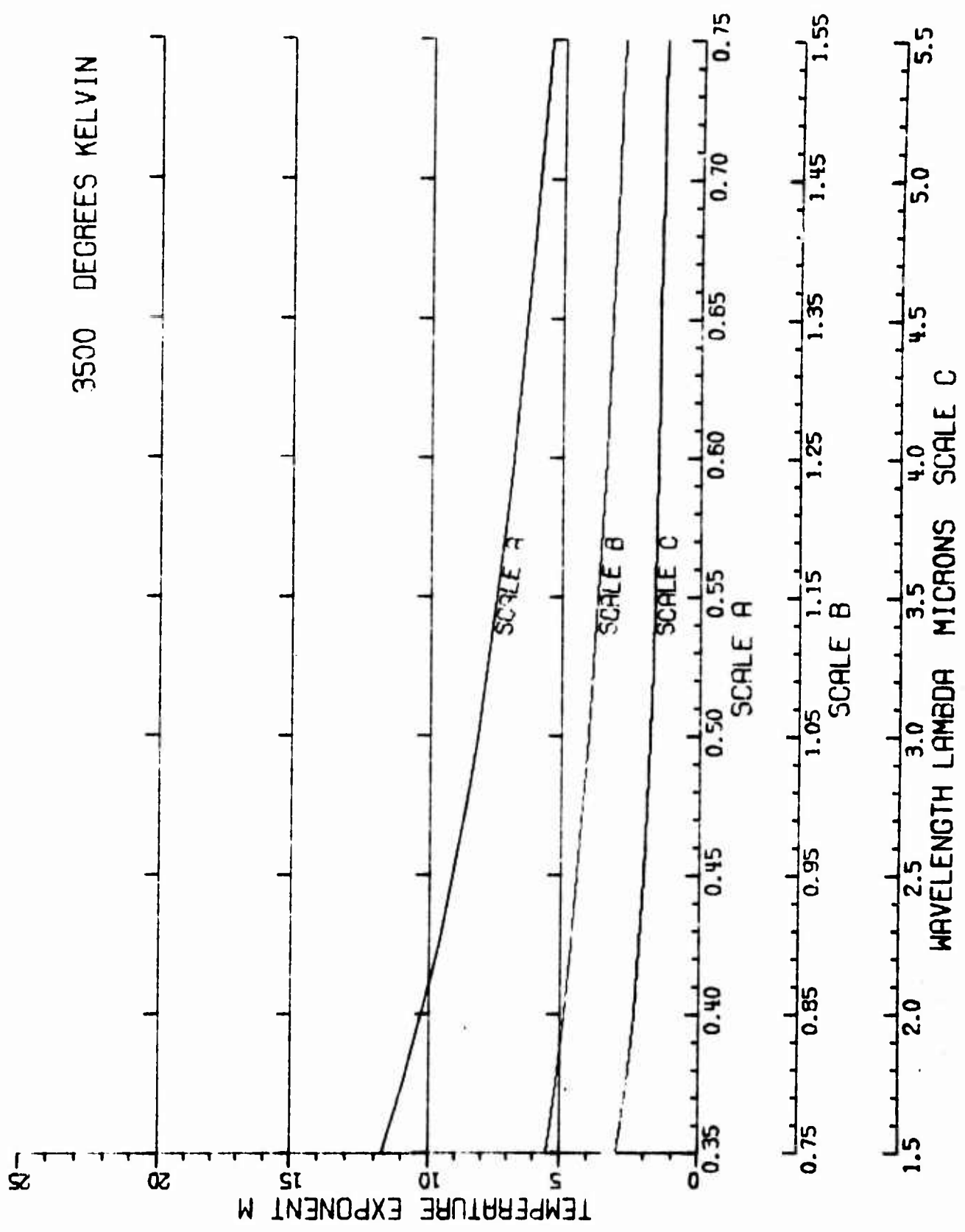


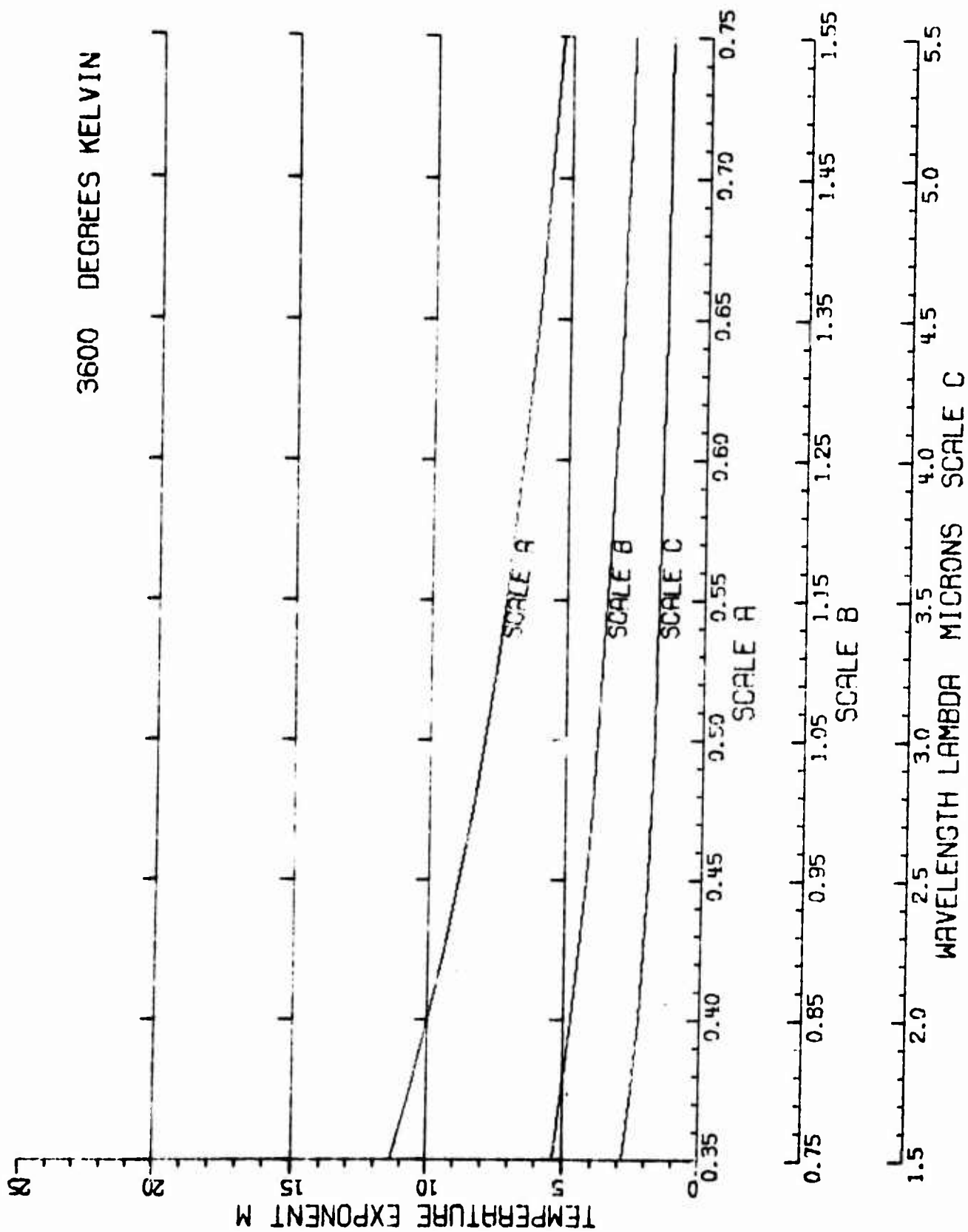


3400 DEGREES KELVIN

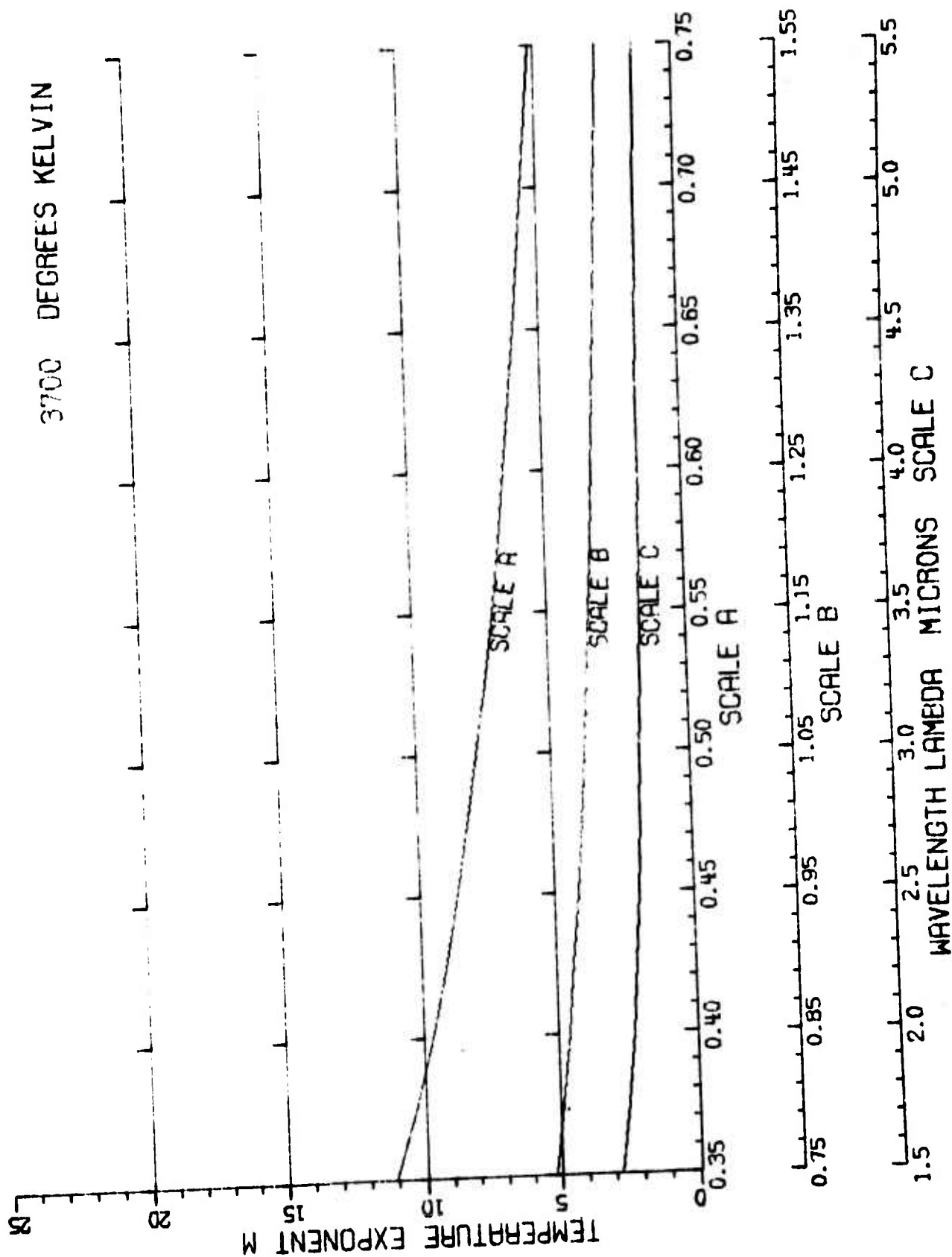


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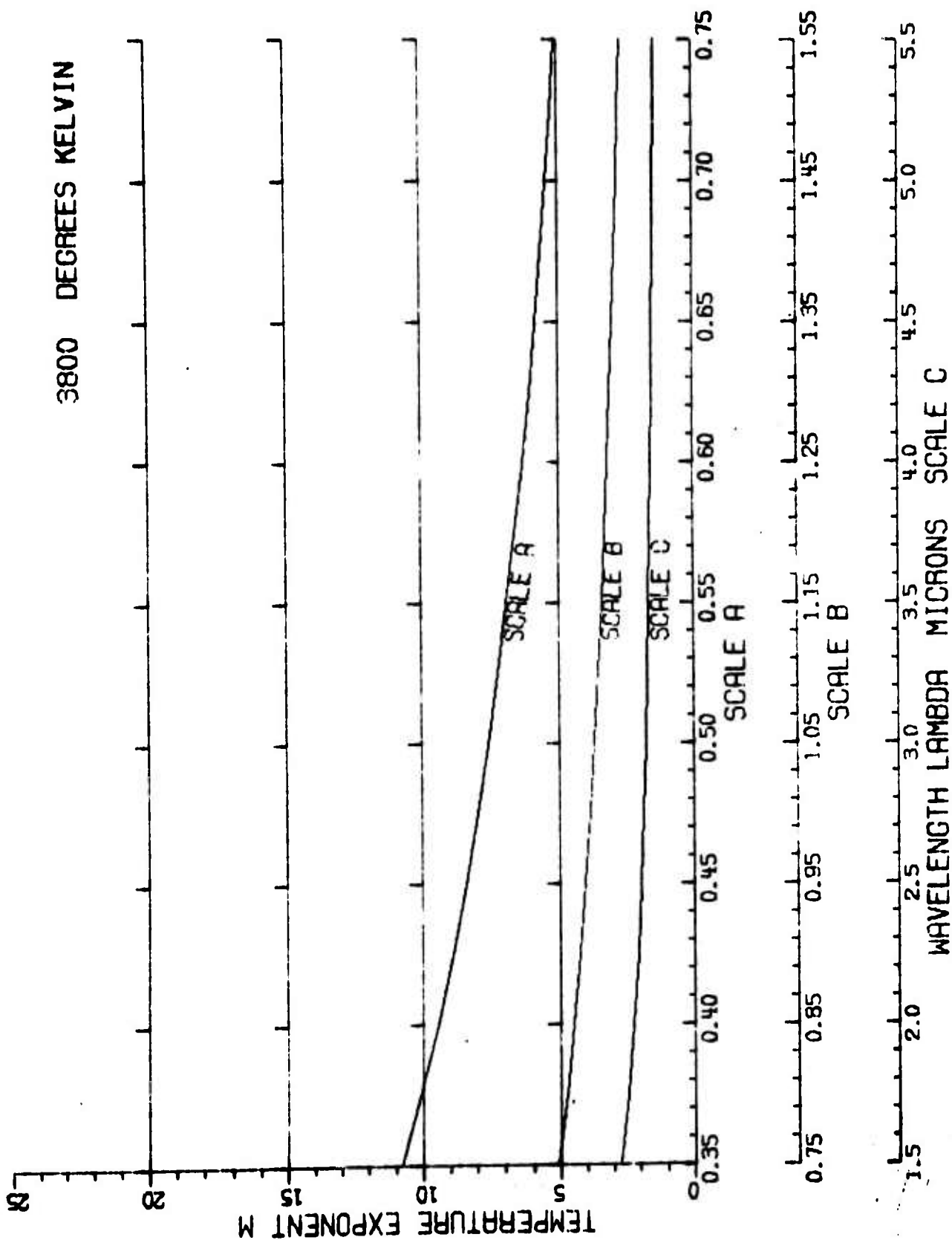




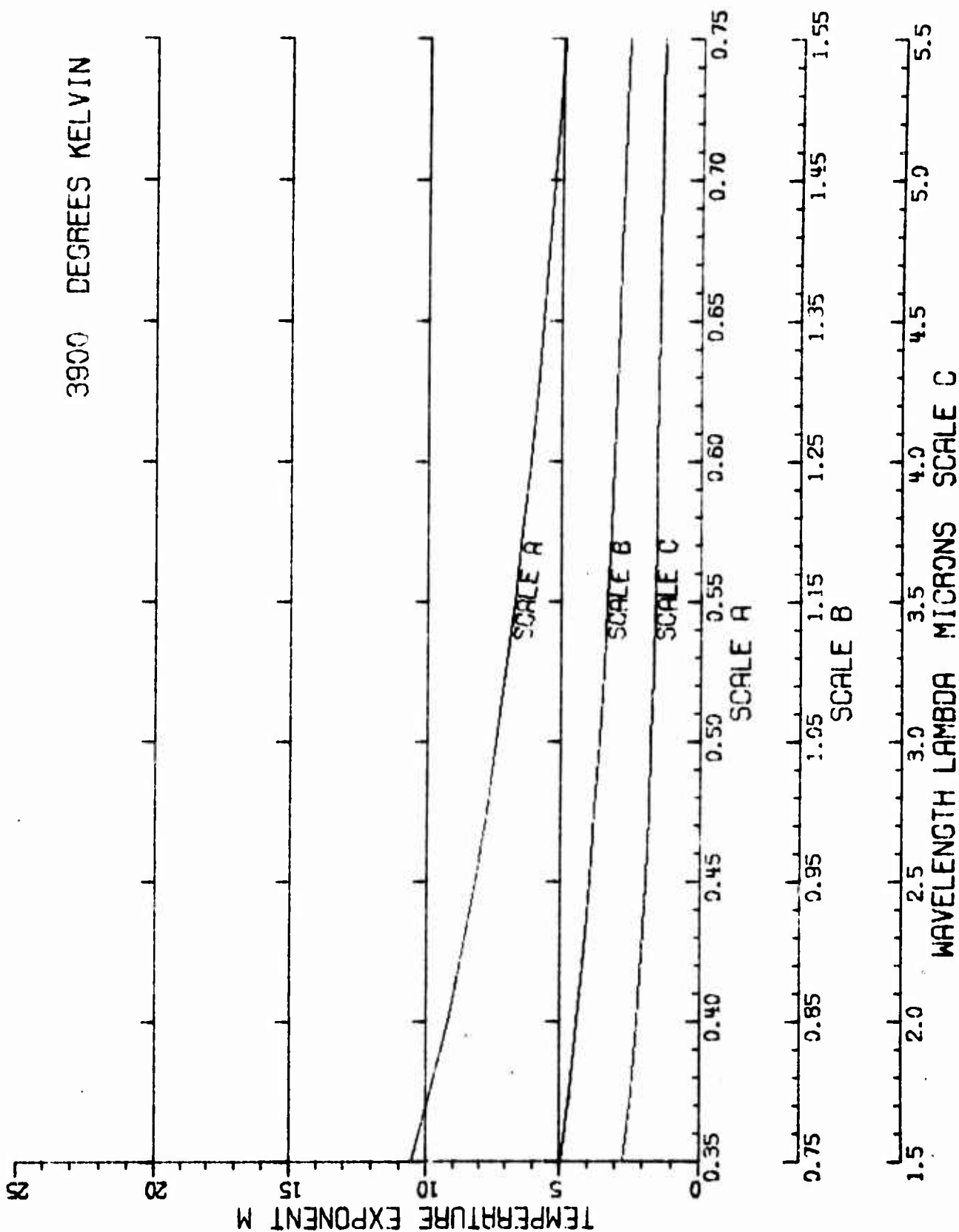
3700 DEGREES KELVIN



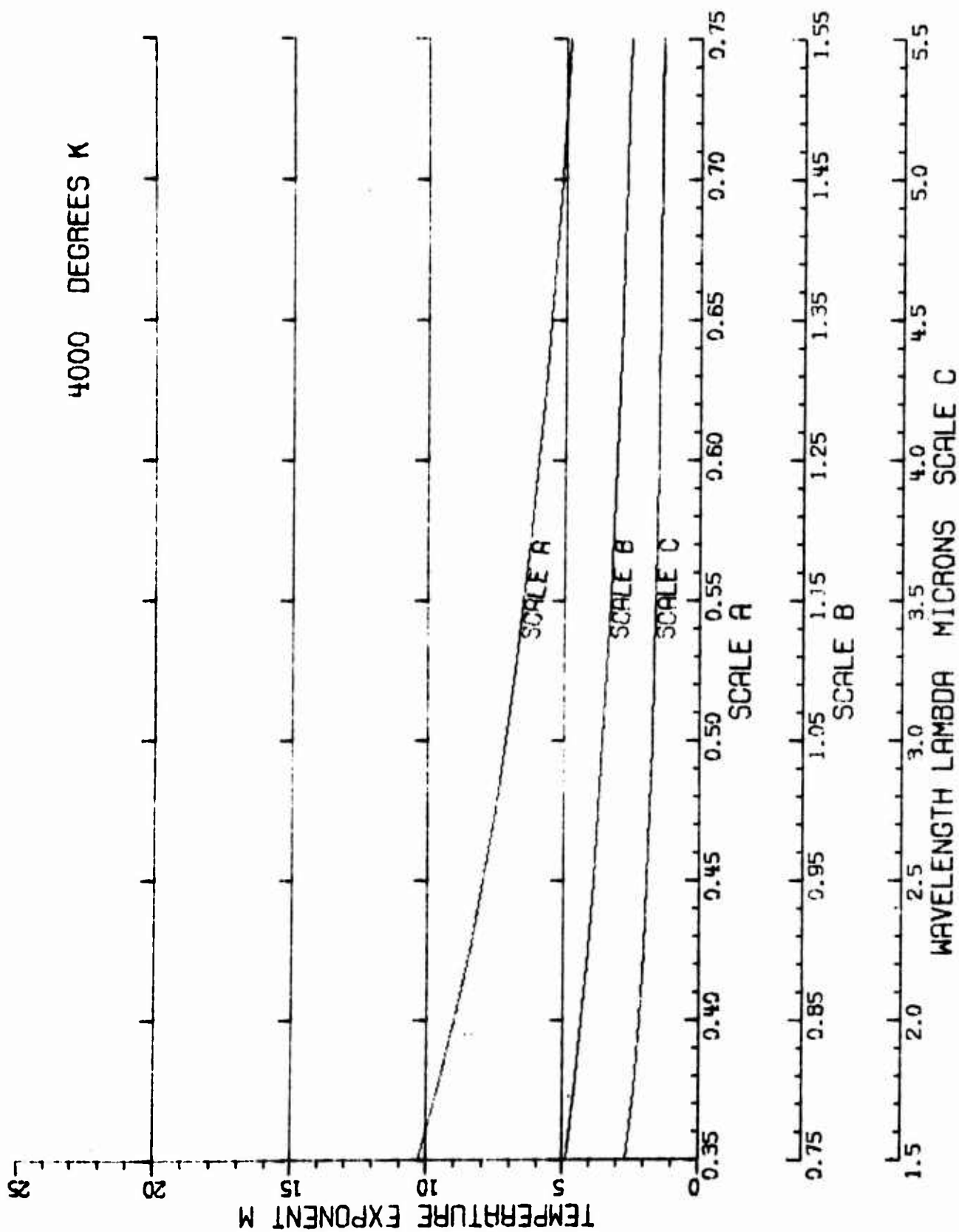
3800 DEGREES KELVIN



3900 DEGREES KELVIN



4000 DEGREES K









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<i>(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)</i>		
1. ORIGINATING ACTIVITY (Corporate author) University of Denver Denver Research Institute Denver, Colorado 80210		2a. REPORT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>
		2b. GROUP
3. REPORT TITLE  Black Body Functions for Pyrotechnicists		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Tabulation, March 1967		
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10. AVAILABILITY/LIMITATION NOTICES Distribution of this document is unlimited.		
11. SUPPLEMENTARY NOTES	12. SPONSORING MILITARY ACTIVITY U. S. Naval Ammunition Depot Crane, Indiana 47522	
13. ABSTRACT  The data presented in the following tabulation is derived from Planck's radiation law. The values used for the first and second radiation constant are $C_1 = 3.7405 \times 10^{-12}$ watts $\text{cm}^2$ and $C_2 = 14385$ micron $^\circ\text{K}$ . The value of the Stefan-Boltzmann constant is $\sigma = 5.6697 \times 10^{-12}$ watts $\text{cm}^{-2}$ $\text{deg}^{-4}$ . The conversion factor from watts/ $\text{cm}^2$ in the visible region to lumens/ $\text{cm}^2$ is 680 lumens watt $^{-1}$ at 0.555 micron.  In general, the values are hemispherical values and should be divided by $\pi$ if values of the component normal to the surface are required.  The wavelength at which the power peaks is calculated from $\lambda_{\text{max}} = 2898$ micron $^\circ\text{K}/T$ . The wavelength produced most efficiently is computed from $\lambda_e = 3652/T$ $^\circ\text{K}$ . This relation is derived by Benford* by setting the derivative of the quotient of Planck's law divided by $\sigma T^4$ , with respect to T, equal to zero and solving this equation.		

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14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
<b>Black Body Functions</b> <b>Tables</b> <b>Radiation</b> <b>Temperature</b> <b>Planck's Radiation Equation</b> <b>Stefan-Boltzmann Equation</b>						

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